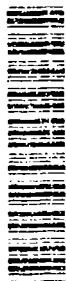


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NO. 221

The U.S. Navy in Operation Overlord under the Command of
Rear Admiral Alan G. Kirk



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UNITED STATES NAVAL ACADEMY
ANNAPOLIS, MARYLAND

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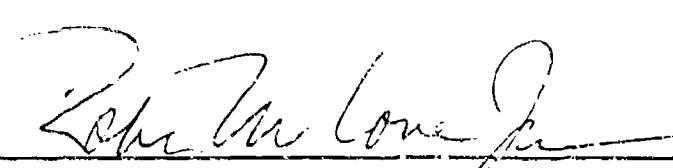
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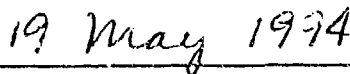
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ABSTRACT

This study examines the mission, preparation, and actions of the U.S. Navy's Western Naval Task Force during operation Overlord under Rear Admiral Alan G. Kirk. Most previous interpretations of the Navy's role in the cross-Channel assault on 6 June 1944 do not adequately cover the actions of Admiral Kirk and his immediate subordinates during the training for and execution of Overlord. Most accounts deal with actions taken close inshore by the men actually hitting the beaches, whereas little has been written concerning the American flag officers in Overlord.

Planning for a cross-Channel invasion began in 1941 when Churchill initiated planning for Operation Sledgehammer to be launched in 1942. Once the United States entered the war, the Joint Chiefs made every effort to execute Sledgehammer, and later backed Roundup in 1943, yet the British maneuvered the United States into conducting campaigns in the Mediterranean which precluded a cross-Channel assault until the summer of 1944.

At the Casablanca Conference in January 1943, Churchill and Roosevelt agreed to formalize the planning for Overlord and established the Chief of Staff to the Supreme Allied Commander or COSSAC. Throughout 1943, COSSAC laid the framework for a three-division assault across the Channel, yet when Eisenhower became Supreme Commander in December 1944, he soon expanded the invasion front to five divisions.

With this expansion and after much debate, the Allies eventually had to delay a planned invasion in the Mediterranean, codenamed Operation Anvil.

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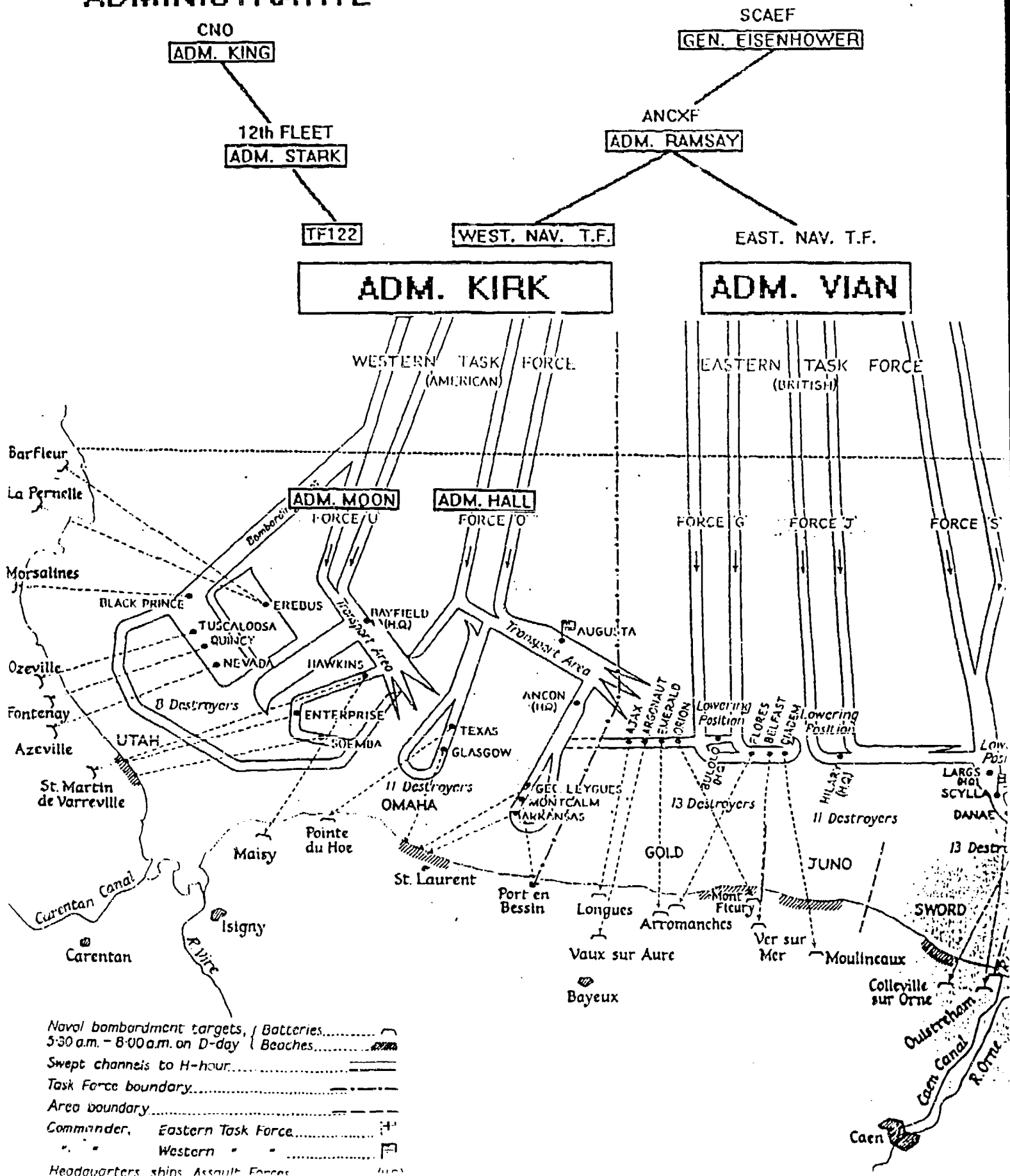
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OVERLORD NAVAL CHAIN OF COMMAND

5

ADMINISTRATIVE

OPERATIONAL



Chapter One

By June 1944, the Germans had occupied the continental side of the English Channel for exactly four years. They had constructed miles of fortifications and beach obstacles in preparation for an Allied amphibious assault which might occur anywhere and at any time. The attack, codenamed Operation Neptune, eventually came on 6 June 1944. Neptune was the assault phase of the overall invasion of France entitled Operation Overlord. The Allied return to Europe exceeded all previous and subsequent amphibious assaults in dimension and complexity. Unlike most World War II-era landings, Overlord did not face an isolated opponent deprived of the means of reinforcing his defenses; indeed, the German Army still numbered over 500 divisions in Europe, of which over 60 garrisoned in France. To defeat the German armies, the United States alone raised and trained over 1,000,000 soldiers to enter the continent and 500,000 airmen and 125,000 sailors to support them. In addition to the American forces, Great Britain and Canada also contributed major armies, navies and air elements. Because tactical and strategic situations changed as the war progressed, many operations were discarded before the Allies agreed to make concrete plans for the invasion of France.¹

Germany's swift expulsion of the British Expeditionary Force from France in 1940 and Greece in 1941, caused many British political and military leaders to be reluctant to

confront the German army in France again except under the best of situations. In both defeats on the continent, many of the British survivors escaped, but very little of their combat equipment left the beaches. After Admiral Sir Bertram Ramsay successfully extracted over 300,000 troops from Dunkirk, Captain Alan G. Kirk, the American Naval Attache in London, reported that the British Army returned to England "just in their standing uniforms of the day with their rifles and their ammunition," adding "that's all they had." Winston Churchill, who had replaced Neville Chamberlain as Prime Minister only two weeks before Dunkirk, had few reasons to believe that the British could soon launch any offensive actions against the main body of the German Army, but he initiated long-range planning for such a day nonetheless.²

Churchill ordered the British Chiefs of Staff Committee to start to plan Germany's defeat "by raids on enemy-held coasts," although for many months after the fall of France in 1940, Britain could not initiate any offensive actions for fear that the British Isles would be invaded. Hitler's provisional movement across the English Channel, Operation Sea Lion, prepared for an assault from the Pas de Calais to Dover. He and his staff picked the narrowest point of the Channel at Calais because all effective fighters in 1940-41 and German landing craft had relatively short combat range. The Germans needed a brief crossing so as to increase their

aircraft's loiter time over their targets and decrease the turnaround time for their landing craft. To destroy the Royal Air Force and diminish Britain's war production, Hitler ordered an all out air offensive by the German Air Force, but inadequacies, such as inefficient medium bombers, saved England from invasion. While the Royal Air Force fought in the skies above Britain, the Royal Navy fought another battle for survival along the sea lanes of the North Atlantic.³

While the air force bombed Britain's cities and factories, Germany's U-boats aimed at isolating England and starving her into submission. Initially, the submarines experienced great success against the unarmed, lone merchantmen in the open seas, but the British and Canadian navies soon initiated escort-of-convoy operations and an unfocussed air plan, and later found help from the United States, then a friendly neutral. It was U-boat commerce raiding that caused the United States to become involved in the Battle of the Atlantic four months before the Japanese attacked Pearl Harbor. Germany's Declaration of War in December 1941 simply legitimized America's practical belligerency.

By the fall of 1940, Admiral Harold R. Stark, the Chief of Naval Operations, realized that should the United States become involved in a global war of coalitions, Germany represented the greatest threat to the Allied Powers. In

his 26-page Plan Dog Memorandum, he urged Frank Knox, Secretary of the Navy, and President Franklin D. Roosevelt, to agree that a German victory over Britain would "free European power for possible encroachment in this hemisphere." Plan Dog expressed Stark's conviction that the United States, once a belligerent, should give Germany's defeat priority over the conquest of Japan. The Japanese, although enjoying success in early operations, simply could not menace the industrial centers of America, Britain, or Russia, and therefore only needed to be contained. As B. Mitchell Stimson, Stark's biographer put it, "At the very worst Japan could seize the Philippines and oust the British, Dutch, and Americans from the Far East." Germany, on the other hand, posed a mortal threat to the Soviet Union and, thereafter, to the British Empire. Should the Germans defeat either Britain or Russia, it was difficult to see how the United States might win the war.⁴

In 1942 and 1943, the Allies planned several operations to open a "Second Front" but discarded each of them for many reasons before finally settling on Overlord. Churchill and his principal service chief, General Alan Brooke, the Chief of the Imperial General Staff, were in agreement with the Europe-first thesis laid down by Plan Dog, but, by 1942, also believed that a "premature Western Front could only result in the most appalling shambles which must . . . reduce the chances of ultimate victory to a minimum." Their

hesitations were warranted for many reasons. After Dunkirk, the British only had a limited force of Home Guards and training divisions in Britain, nearly all of the Expeditionary Force's weapons and heavy equipment having been abandoned in France. Moreover, Britain and other Commonwealth Nations had established a large force in North Africa to deal with a much larger Italian Army in Libya and in 1941, the German Afrika Korps. Additionally, in December 1941 and early 1942, the Japanese army and navy defeated the British in Hong Kong, Singapore, and Burma, and sank the battleship Prince of Wales and battle-cruiser Repulse with apparent ease. Despite these many setbacks, Churchill saw the need for immediate action against Germany, but disagreed with the Americans as to where best to employ the Allies' small but growing forces.⁵

Although reluctant to confront the German Army in France, Brooke admitted that reasons existed to take the gamble; the most important being the need to relieve the Russians. From the 22 June 1941 onset of Operation Barbarossa, the Axis invasion of the Soviet Union, to the success of the Red Army's counteroffensive around Stalingrad in January 1943 at the earliest, the specter of a defeated Russia governed British and American thinking about a Second Front. Indeed, the British considered the Soviet situation so desperate that Brooke noted "that the dispatch of land and air forces to operate with the Russians . . . was being

seriously considered." Should Soviet Russia collapse, he foresaw millions of German soldiers being released to reinforce other fronts or launch new offensives. Worried about the grave outcome of Russia's defeat, the Combined Chiefs of Staff (CCS) planned for Operation Sledgehammer--an Allied cross-Channel assault scheduled for September 1942--to divert German divisions from the Eastern Front in the event that Stalin appeared to be about to quit the war.⁶

In preparation for an assault across the Channel to ease the pressure on Russia, America undertook a buildup of men and material in Britain codenamed Operation Bolero. Under Bolero, the War Department also began equipping the Army Air Force to carry out an air offensive against Germany from British bases in 1942. The Joint Chiefs planned to use infantry and armor designated for Bolero in a major invasion of the continent in 1943, an operation codenamed Roundup. Early arriving forces could also have been used in a continental operation in conjunction with the British in 1942. By May 1942, however, the U.S. Army had shipped only 32,000 troops to Britain and Northern Ireland. The buildup continued throughout the summer of 1942 with huge American troop convoys escorted by high density antisubmarine screens steaming across the North Atlantic. George C. Marshall, the Chief of Staff of the U.S. Army, and Admiral Ernest J. King, the Chief of Naval Operations, intended to employ these forces to conduct Sledgehammer in 1942 or Roundup in 1943,

but they soon faced British opposition to both plans.⁷

It was ironic given the later controversy, that it was the British Chiefs of Staff who originally devised Sledgehammer as an emergency invasion of France for the Autumn of 1942 if it appeared that Russia might fall to the Germans. The British also considered Sledgehammer a possibility should the German armies on the Eastern Front collapse and Hitler's French defenses become vulnerable. Upon entering the war, King and Marshall supported Sledgehammer as the means to quickly engage part of the German Army and thereby relieve pressure on the Eastern Front. Major General Dwight D. Eisenhower, the head of the Army's War Plans Division, revived Sledgehammer, reminding the British that "we should not forget that the prize we seek is to keep 8,000,000 Russians in the war." In April, the British agreed to mount Sledgehammer and Roundup, but when Churchill and Brooke reneged in June, Roosevelt sent his special advisor, Harry Hopkins, King, and Marshall to London in July 1942, to urge that Sledgehammer "be regarded as the opening phase of Roundup." Nonetheless, the British Chiefs of Staff and Churchill finally refused to launch Sledgehammer and recommended operations against German units in Norway or North Africa instead. Because the landing forces in Sledgehammer would have been mostly British, their refusal was final and Marshall and King had to look for another means to employ their emerging military might.⁸

Operation Roundup, the second cross-Channel operation devised by the Joint Planning Staff of the Chiefs of Staff, called for a more substantial landing force in 1943 than intended for Sledgehammer. Rather than focus on seizing a single bridgehead for later reinforcement, Roundup's planners intended to land simultaneously not only near the Pas de Calais, but also on both banks of the Seine River in Normandy. After the British vetoed Sledgehammer in July, the Joint Chiefs were willing to allow Bolero to continue, assuming that the Allies might still mount Roundup. This was acceptable to Roosevelt, whose administration had authored a string of early defeats and who feared that the Democrats would lose their majorities in Congress in the November 1942 elections; he insisted that the U.S. Army engage the German Army by October. Neither the Joint Chiefs nor the British Chiefs of Staff favored Churchill's preferred alternative, Jupiter, an invasion of northern Norway, so they settled at length on Torch, a plan providing for Allied landings in French Morocco and French Algeria.'

Part of Churchill's Mediterranean strategy was the expulsion of the Italian Army and the Afrika Korps, commanded by Field Marshall Erwin Rommel, from North Africa. Although originally proposed as Operation Gymnast, following major changes the Allies designated the landings Operation Torch. During Torch, Anglo-American forces landed in Morocco and French North Africa, the intent being to occupy

Tunisia quickly and hasten Rommel's defeat by diverting his forces from his eastern front then facing General Bernard L. Montgomery's British Eighth Army in Egypt. Three task forces consisting of 119 ships made up the convoys sailing from America and Britain carrying the troops for Torch's three pronged assault and during Torch the Allies landed over 100,000 men in North Africa on 8 November 1942. Following Rommel's defeat, rather than returning many landing craft to Britain to prepare for Roundup in 1943, however, most of the amphibious shipping remained in the Mediterranean.¹⁰

The Joint Chiefs' worst fears were soon realized. At the January 1943 Casablanca summit, Churchill and the British Chiefs insisted on exploiting the Mediterranean campaign which Marshall and King opposed. Because Roosevelt refused to support his chiefs, the British triumphed almost by default. Following victory in North Africa, instead of focusing Allied resources on Roundup, the Allies invaded Sicily in Operation Husky, and then Italy in Operations Baytown, Slapstick, and Avalanche. Following the Husky invasion, Eisenhower would have preferred landing in force north of Rome to cut the peninsula in half before the Germans had the opportunity to fortify Italy's mountains and river valleys. However, the lack of full American support forced him to make smaller landings on the Italian boot. In short, until the summer of 1943 the British had dominated

the conference tables. When the Allies were preparing of the Italian invasion, though, King and Marshall began to exert more influence over the distribution of Lend-Lease production and shipping, and used this leverage to limit the scale of the invasions on the Italian peninsula.¹¹

The American reasons for trying to limit their commitment to a continued Mediterranean strategy in 1943 were clearly visible. While King had always acted as an advocate for the Navy's position in the Pacific over Mediterranean operations, he stoutly supported the Germany-first strategy and the cross-Channel approach, and agreed with Marshall that the Italian campaign was "a vacuum into which it is essential to pour more and more means." King and Marshall remembered that the British had proposed the Italian campaigns at the Trident Conference in Washington in May of 1943 as a means of relieving the pressure on Russia and pulling German divisions away from Normandy. However, intelligence later revealed that Husky had drawn no enemy divisions away from the Russian front, and only five German divisions from France; King and Marshall doubted that operations in central and northern Italy would be more successful. Following the immediate surrender by the Italians and the German occupation of the country, the Italian campaign soon developed into a costly, slow drive against easily defended terrain. Indeed, the Allies barely reached the Alps when Germany finally surrendered in 1945.¹²

Although Churchill insisted in 1942 that Torch would not influence the execution of Roundup, King realized that Torch would become an "insurmountable drain" on Allied resources and surely preclude a cross-Channel assault in 1943. In a message to the President in July 1942, King and Marshall wrote that Torch "would be both indecisive and a heavy strain upon our resources" and that "we would nowhere be acting decisively against the enemy." They added that, without "unswerving adherence to the Bolero plans," they thought "we should turn to the Pacific and strike decisively against Japan."¹³

This message, in addition to a similar memorandum circulated by Marshall in April, were actually political trump-cards played by King and Marshall to encourage the British to support Roundup. Marshall had no intention of abandoning the "Germany First" concept and King knew that even after the victory at Midway, his fleet could not begin advancing against Japanese outposts without the large fleet carriers not due to arrive until mid-1943. When asked by Roosevelt for plans to attack the Japanese, the Joint Chiefs even had to admit that there were no detailed plans inasmuch as such operations constituted a "reversal of our current strategy." The Joint Chiefs had leaked these papers to the British sometimes even before they sent it Roosevelt. However, Roosevelt upset King and Marshall's scheme when he informed Churchill that he planned to order operations

against the Germans in 1942 no matter the area.¹⁴

Other questions arose as to whether an assault in 1943 would have been possible. By June 1943, the major problem pointed to by Roundup's adversaries was the shortage of available landing craft. From April 1942 to May 1943, American shipyards gave landing craft the highest priority under the First Landing Craft Program initiated by the War Production Board, but King allowed landing craft to be dropped from the "4A" priority list in late 1942. In May 1943 American shipyards stopped building amphibious shipping and once again began priority construction of destroyers and destroyer escorts to meet the U-boat threat off the East Coast and in the North Atlantic. Once the First Landing Craft Program ended, the War Production Board did not initiate another such program until after the Quebec Conference in August 1943. However, while the Navy had few landing craft in Great Britain, during Operation Husky the Allies managed to land seven divisions on Sicily simultaneously.¹⁵

Besides accomplishing the tremendous buildup needed to launch the debated landing in 1943, doctrinal differences between the American and British military leaders had to be overcome. As the Allies faced each other at the conference tables, the British and the Americans had two very different strategies for the defeat of the Germany and neither wanted to give. While King and Marshall wanted to assault the

German army directly in France, Britain preferred to attack the fringes of Hitler's empire and wear down the Germans on the periphery. Both arguments had equal relevance to each nation's leaders; however, the English won their early strategic battles at the conference tables. Because they had been at war much longer, their planning and support staffs arrived at the early Anglo-American conferences much better prepared to support their national policies. When faced with the Churchill and the Chiefs of Staff's strong reasoning and Roosevelt's orders to employ their forces swiftly, the Joint Chiefs under Marshall and King had no choice but to allow the British to delay the "Second Front" until American units made up a majority of the forces involved.

The British reluctance may have also resulted from seldom expressed fears. Unlike the Americans, they had little successful experience with amphibious operations. Whereas the U.S. Navy and Marines had effectively launched consecutive landings up the Solomon Islands, the British had only conducted landings in World War I, small raids along the channel, and the tragic attack on at Dieppe in August 1942. Churchill accentuated the British fears when he told Anthony Eden, his foreign secretary, to "remember that on my breast there are the medals of the Dardanelles, Antwerp, Dakar and Greece." All four of these battles were disastrous campaigns conducted by the British during World

War I and II and caused Churchill to doubt the prospect of success during a cross-Channel assault. Additionally, British leaders not only feared the losses on the beach but also that the invasion might evolve into the protracted trench warfare the British experienced in the first World War. That anxiety was evident when Professor Lindemann, Churchill's friend and counselor said to Marshall, "You must remember you are righting our losses on the Somme." Therefore, without overwhelming forces for the invasion, Churchill predicted tremendous casualties, if not defeat, and preferred the less defended areas along the Mediterranean.¹⁶

Chapter Two

Even while American and British armies fought in the deserts of North Africa, the groundwork for the Cross-Channel operation might be seen emerging as the Anglo-American conferences progressed. At Casablanca in January 1943 the British finally agreed to establish a joint-planning staff for the purpose of preparing plans to reenter France. Working from the decisions reached at Casablanca, the British Chiefs of Staff chose Lieutenant General Frederick Morgan to head this staff; his billet was Chief of Staff to the Supreme Allied Commander(designate)--a title generally shortened to 'COSSAC'--in March 1943. The Combined Chiefs directed Morgan to prepare plans "to defeat the German fighting forces in northwest Europe."¹

Although the Combined Chiefs had initiated Operation Bolero in 1942 to provide for Sledgehammer or Roundup, Morgan had little to work with and so had to build his own staff. He considered the COSSAC naval component as "very much of a makeshift." The U.S. Navy immediately assigned a naval officer to COSSAC, but the British only assigned him personnel on only a temporary basis. All of his Royal Naval officers worked for both COSSAC and Home Command Portsmouth. Initially, this arrangement was somewhat awkward because Vice Admiral Charles Little, the Vice Admiral Portsmouth, was considerably senior to Morgan. In the end, however, Little assigned Rear Admiral Sir Phillip Vian and Commodore

John Hughes-Hallett to the cross-Channel project. They were very able officers and their experience on the COSSAC staff eventually served Overlord well. In June 1943, Royal Navy Rear Admiral George Creasy also joined Morgan, and he went on to serve as the Allied Naval Commander's Chief of Staff.²

Beyond receiving the best personnel, Morgan inherited vast quantities of intelligence. The British possessed extensive knowledge of the Channel Coasts before the war due to their control of that key waterway for centuries. The Operational Intelligence Center's (OIC) activities also contributed to Morgan's work. Established soon after hostilities commenced, the OIC maintained surveillance of the French coast using both human and electronic surveillance. Under the OIC, the Allies conducted Ultra, which was the codeword assigned to networks of radio receivers, decryption specialists, and code-breakers who had cracked the German Enigma cipher system. OIC operations revealed German defensive minelaying, their use of underwater obstacles, and the appearance of new types of patrol craft. Morgan applauded their work because he not only had information on German activities but also received information on "every inch of the enemy's coastline."³

When the Combined Chiefs established COSSAC, they divided Morgan's assignment into three distinct operational areas. Morgan's primary task was to prepare the "master plan" for a "full-scale assault against the continent as

early as possible in 1944." These plans involved organizational tables, training programs, convoy routing, assault techniques, and nearly every other aspect necessary for a full scale invasion. To prepare for the invasion, Morgan later wrote he had to use a strategic map showing "us at once that at this time our army lay with its head in southern England and its tail in the neighborhood of the western seaboard of the United States."⁴

Morgan additionally prepared plans for the immediate reentry onto the continent in case of a complete disintegration within the German military. The plan for immediate reentry was designated Operation Rankin. While a German "disintegration" may have seemed a little much to hope for in 1943, Morgan justified his planning by referring to "the undeniable facts of 1918." In March of 1918 the Germans appeared on the verge of victory, whereas, by November they had collapsed and signed the armistice in Versailles. Morgan also pointed out that "A rapid comparison of the general state of affairs that had existed at the beginning of 1918 with those now existing at the beginning of 1943 showed quite a number of points of coincidence."⁵

Finally, he and his staff formulated diversionary operations "for the purpose of pinning down the enemy in the west so that he might not reinforce at will his active fronts against the Russians." Morgan's staff conceived

operations to mislead the Germans into believing that a major threat existed in the Pas de Calais or even Norway. The Allied navies first conducted Operation Cockade in 1943. The nucleus of Cockade was Operation Starkey, which included a simulated amphibious landing called Operation Harlequin aimed at the Pas de Calais. Although the Germans did not immediately transfer any additional division to the Pas de Calais after Cockade, General Morgan believed that "certain naval activity in the Channel and flooding of the lowlands behind Caen and the Cotentin beaches" might be "reasonably ascribed" to the Cockade feints.⁶

Cockade also contained smaller maneuvers aimed at the Brest Peninsula and Norway. The American Army conducted Operation Wadham to sway the Germans into overestimating the strength of American forces in Britain threatening the area around Brest, France. Simultaneously the British staged Operation Tindall out of Scottish ports to pose a threat to German forces in Norway.⁷

COSSAC also planned Operation Fortitude, conducted in 1944, which was similar to Cockade but on a much larger scale. Fortitude North was the phony invasion of Norway. Fortitude South feinted an invasion through Belgium. Fortitude South II persuaded the Germans that the major invasions would be after a first strike, and that the real invasion might be at the Pas de Calais or farther east. To encourage the Germans to believe that the Allies intended to

land in the Pas de Calais, the Americans built the nonexistent First Army Group around General George S. Patton. Patton's "army" had several fabricated camps in Kent and Sussex. Garrisons stationed in the camps marched back and forth, lit cook-stoves, and sent extensive radio message traffic to make the camps appear functional to German reconnaissance aircraft and radio interceptors. Information provided by the Allies during Operation Fortitude convinced the Germans and they designated most of their fortification, long-range artillery, and static divisions to the Pas de Calais.⁸

During Fortitude North, following Operation Tindall, the Allies also tried to persuade the Germans that they intended to invade Norway. While debating against Sledgehammer, Churchill had previously recommended an invasion of Norway to relieve pressure on the Russians. Although the Allies quickly dropped Churchill's proposal, the Germans must have used logic similar to Churchill's, because they maintained a half million troops, two Panzer armies and a large number of German Air Force elements in Norway. Operations Tindall and Fortitude North effectively convinced Hitler that the Allies aimed to liberate Norway and he maintained this tremendous garrison in the country all the way to his death.⁹

To deceive the Germans, the Allies had not only to provide false information, but also to extinguish Germany's

legitimate sources of intelligence in Britain. The British initiated the Double-Cross System in order to detect and turn German agents in Britain. Double-Cross's success denied Hitler valuable information on Allied movements and also gave him false evidence of American troop deployments in eastern Britain. Although the British had difficulty assessing the effectiveness of Double-Cross until after the war, intelligence once intercepted a message from Berlin to Madrid concerning information supplied by the British through a Double-Cross agent. The message read, "all reports received in the last week . . . have been confirmed without exception and are to be described as especially valuable."¹⁰

In addition to planning for the assault, Morgan had to prepare a method for eventually moving the thousands of tons of supplies a day into France. Morgan knew that early in the planning, especially after the disastrous Dieppe raid, the Germans would deny them the use of a functional port for some time. As a substitute for a French port the Allies concluded they must bring their own ports across the English Channel. Although no one person is given full credit for developing the artificial harbors, designated "Mulberries," two figures contributed to their birth. Churchill is accredited with suggesting the use of concrete breakwaters during World War I as "a weatherproof harbour" and he reiterated his notion to Vice Admiral Lord Louis Mountbatten

on 30 May 1943. However, Commodore Hughes-Hallet devised the actual method used in the construction of the ports. Morgan granted him the credit for the operation and referred to Hughes-Hallett as the "real progenitor of the fabulous enterprise known as Mulberry." When finally completed Churchill and Hallet's concept had cost a total of twenty million pounds and consumed a considerable amount of the British war economy.¹¹

While Morgan prepared the above plans and attempted to amass the men and supplies needed for initial training and the build-up, he had one major obstacle that he could never overcome. Morgan experienced many setbacks because he was the Chief of Staff to a man and a command that did not exist until December 1943. Although he stated that he and his staff could assume they worked for "Generalissimo X," this idea "didn't seem to go so well in contact, and often in conflict, with other outside bodies of greater reputation and stature who were sufficiently fortunate as to possess high-ranking commanders in the flesh." General Brooke summarized Morgan's difficult situation when he told Morgan, "Well, there it is; it won't work, but you must bloody well make it." Even with the lack of a Supreme Commander, Morgan's staff conceived such a sound and detailed plan, that Admiral Ramsay wrote after the operation, "Its [COSSAC's Outline Plan] soundness was proved later in detailed planning as in no respect were its fundamentals

altered."¹²

All of Morgan's efforts were initiated at the Casablanca Conference in January 1943. However, he had to endure the problems associated with the lack of a Supreme Commander until after the Tehran Conference in December. Although for some time he had known an American would command the invasion, he and most senior British officers did not expect Roosevelt to select General Eisenhower. Morgan wrote, he "had decided for better or worse to make the assumption that General Marshall was to be our chief." At that time Eisenhower commanded all Allied forces in Italy. After receiving his new orders, Eisenhower turned over his command in Italy to Field Marshall Sir Harold Alexander and reported to Supreme Headquarters Allied Expeditionary Force (SHAEP) in January 1944.¹³

The selection of Eisenhower as Supreme Commander, Allied Expeditionary Force for the invasion of France represented a compromise between the Americans and British. The Combined Chiefs had originally assumed that the Supreme Commander would be the British Chief of the Imperial General Staff, General Alan Brooke, but as planning and preparations progressed, they realized that the United States would provide the larger portion of the men and materials following Neptune. Therefore, in August 1943, Churchill suggested that Roosevelt select an American to lead the invasion.¹⁴

To many, including Morgan, General Marshall seemed the most likely choice as Supreme Commander. This assumption carried such certainty that Secretary of the Navy, Frank Knox, told Eisenhower during a visit to Africa that he would become the new Army Chief of Staff. This conversation came even after Admiral King had told Knox at the Quebec conference that he felt Marshall could not be spared in Washington. In fall 1943, Morgan also learned when talking with Roosevelt that he thought Marshall was too valuable as Army Chief of Staff. Morgan had bluntly asked Roosevelt for "your Army, your General Marshall, and your Ambassador Biddle." Roosevelt replied that Morgan could have the Army, but he doubted "very much if General Marshall could be spared."¹⁵

When finally forced to make his decision after the Tehran Conference in November 1943, Roosevelt found Eisenhower to be the only acceptable choice to lead the Anglo-American expeditionary force. Although a lieutenant colonel when the war began and only a brigadier in 1942, Eisenhower had quickly risen through the Army ranks because of his staff abilities and talent for resolving international differences within a combined command. After commanding American and British forces in Operation Torch, Eisenhower then commanded Operations Husky and Avalanche against Axis forces in Sicily and Italy. Even with his experience as a combined forces commander, Admiral William

Leahy, Roosevelt's Chief of Staff, later wrote that Eisenhower's selection came "something of a surprise." He added that the "Joint Chiefs never recommended Eisenhower or anyone else." Upon receiving word of his appointment for Overlord, Eisenhower returned to Washington for a short visit after sending his Chief of Staff, Major General Bedell Smith, and the new Commander 21st Army Group, Field Marshall Montgomery, to England to review the Overlord Plan.¹⁶

COSSAC originally planned to land simultaneously three amphibious divisions and drop two airborne brigades behind the beaches in Normandy. Additionally, they intended to have two more divisions embarked to land on the following tide. Soon after Eisenhower's appointment, COSSAC's plan had to be expanded. Admiral Ramsay informed the Secretary of the Admiralty of the first change on 7 January. He and the Overlord commanders proposed to "increase the initial assault from three divisions to four divisions with one as a floating reserve." The next expansion came after Generals Omar Bradley, Bernard Montgomery and Miles Dempsey had met and discussed COSSAC's plan. They then proposed to add an additional assault division. They stated that the original three division front would not be capable of reinforcing swiftly enough to outrace the Germans. Thus, the final invasion consisted of five divisions with one American division assaulting the east coast of the Cotentin Peninsula, another immediately to east across the Bance du

Grand Vey, two British divisions to the east with one Canadian division between the British divisions, and airborne divisions behind one British beach and each American beach. Even though the Army could easily strengthen its assault forces, acquiring the necessary naval lift presented such an obstacle that other theaters had to delay operations to provide additional landing craft.¹⁷

Other than need for lift, Eisenhower inherited other difficulties. Foremost was his lack of control over the American Strategic Air Force and the British Bomber Command in Britain. Air Marshall Arthur Harris commanded the Royal Air Force's Bomber Command and General Carl Spaatz led the 9th Strategic Air Force. Throughout the war, both Spaatz and Harris answered directly to the Combined Chiefs. With the Combined Chiefs in Washington, they had enjoyed tremendous freedom and they resisted Eisenhower's suggestion that the Supreme Commander should be interposed within this relationship. Eventually the Combined Chiefs settled the issue and granted Eisenhower direction of all air operation out of Britain and ordered that "approved air programmes in preparation for and in support of Overlord and incorporating Pointblank would pass to the Supreme Commander on April the 14th . . . until Overlord is established on the Continent." Even with this concession, Eisenhower still had to direct many of his orders through the appropriate Air Force or Royal Air Force liaison officers, who then relayed the

orders to the normally strategic squadrons.¹⁸

Operation Pointblank, mentioned above, was initiated in June 1943 after decisions at the Trident Conference reinforced the Allied devotion to Overlord. The Combined Chiefs planned for their bombers to destroy industrial targets sustaining German air defense capabilities during Pointblank. Harris and Spaatz zealously undertook this operation and thousand of aviators lost their lives over Germany and France. However, the result of Pointblank easily justified the cost. By the time the Allies launched Overlord, the German Air Force could not even fly over the beaches on D-day and had to limit their action to nighttime bombings and mine dropping.¹⁹

In addition to nearly destroying the all of the German air force, American and British strategic bombers attempted to discretely isolate Normandy from the rest of France. This endeavor was designated the "Transportation Plan." By destroying bridges in such places as Tours, Rouen, Mantes, Dreux, and many others in France along with rail yards throughout the country, Pointblank was planned to enable the Allies to face only those division in Normandy until the beachhead was securely in place.²⁰

While the Air Force effectively bombed German factories and the French transportation network, they flatly refused to help the Navy by bombing German torpedo boat pens along the Channel Coast. These pens housed the German

"Schnellboote." These fast and effective torpedo boats were more commonly known to the Allies as E-boats. In this situation the American and the Royal Navies were in complete accord, as illustrated by Admiral Harold Stark's, Commander Naval Forces Europe, correspondence with Rear Admiral Charles Cooke, King's top planner about the subject. Stark wrote, "I still maintain one of the heavy threats to us during the big move across the Channel will be the German E-boat," and adding, "Admiral Cunningham is in complete accord with this." At that time Cunningham was the First Sea Lord and Chief of the Naval Staff. Stark also reminded Cooke of the "error made when the Air Force did not bomb the U-boat pens until too late." Stark had written because King held Cooke's opinions in high esteem and Stark hoped King and Cunningham could influence the Combined Chiefs to take action. Even with such high level supporters as King, Cunningham, and Stark, the Air Force never made any determined effort to attack the E-boats until after Overlord had begun.²¹

Thus, with the broad plan for Overlord and supporting operations in place, Eisenhower and his subordinate commanders had to begin the tedious process of filling their subordinate chains-of-command, assessing the number of soldiers, airmen and sailors needed, and finally training the millions of men and women involved in the operation.

Chapter Three

In the autumn of 1943 the Combined Chiefs had decided that the Commander-in-Chief of the 21st Army Group should be "jointly responsible with the Allied Naval Commander-in-Chief and the Air Commander-in-Chief, Allied Expeditionary Air Force, for planning the operation" until the Supreme Allied Commander "allocated an area of responsibility to the 1st U.S. Army Group." The British had temporarily given the 21st Army Group to General Bernard Paget, but soon after Eisenhower's appointment, General Brooke called Montgomery from the Mediterranean to take the command. Like Montgomery, the Air and Naval Commander-in-Chiefs were also British. With an American Supreme Commander, it was appropriate to have British officers as Eisenhower's immediate subordinates. British and Canadian divisions not only represented three-fifths of the landing force, but also the Royal Navy was expected to provide all the naval forces. Britain's proximity to France and Overlord's dependence on the Royal Navy's home commands for support were also reasons why Expeditionary Force Commanders were British.¹

Before Eisenhower's appointment, the British had also selected the air force and naval commanders. In August 1943, Air Marshall Sir Trafford Leigh-Mallory assumed command of the Allied Expeditionary Air Force which included most of the tactical aircraft in direct support of Overlord. Most of Leigh-Mallory's command consisted of fighters and

medium bombers, whereas Air Marshall Harris's RAF Bomber Command and General Spaatz's U.S. Strategic Air Force consisted of the heavy bombers in England, and continued to answer to the Combined Chiefs.

When the British Chiefs of Staff selected Leigh-Mallory, they also named Admiral Sir Charles Little, the Commander-in-Chief Portsmouth, Allied Naval Commander Expeditionary Forces (ANCXF). By October their Chiefs of Staff realized that Little's home command needed to be separated from Overlord and Admiral Sir Bertram Ramsay replaced Little as ANCXF. Ramsay held this title once before in 1942 in preparation for Sledgehammer when the British had little intention of launching a cross-channel invasion. Ramsay later helped plan Operation Torch in November, and commanded the Eastern Task Force during Operation Husky.²

Although the Expeditionary Force CinCs were British, many American officers, including Admiral King in the Joint Chiefs of Staff, pushed for the United States to retain operational control over American units. Therefore, Eisenhower divided Overlord into the Western and Eastern Task Forces. American units comprised the Western Task Force and British units the Eastern Task Force. Beneath Montgomery on the eastern side of the assault, British Lieutenant General Miles Dempsey and Canadian Lieutenant General H.D.G. Crerar commanded the British 2nd and Canadian

1st Armies. In the west, Montgomery commanded Lieutenant General Omar Bradley's U.S. 1st Army during the Neptune stage of Overlord. Although this later became the 1st U.S. Army Group under which he commanded all the American armies in France, during Neptune, Bradley only had the U.S. 1st Army under the command of Lieutenant General Courtney H. Hodges. These generals had worked with and for Montgomery many times during operations in the Mediterranean and their command interacted smoothly.³

While Montgomery assumed that his Army commanders would directly control their forces during the assault, Ramsay initially planned to guide personally most aspects of the naval operation. Beneath Ramsay, British Rear Admiral Phillip Vian, who had served under COSSAC during the early planning, would command the British Eastern Naval Task Force and Rear Admiral Alan G. Kirk, the American Western Task Force. Initially Ramsay planned to give Kirk few command responsibilities. Kirk later recalled that he "was expected by Ramsay . . . to be advisor on his staff for American naval operation, and that the actual task group of Americans that landed was to be under Admiral Ramsay completely." As the American Navy contributed more warships to Overlord, Ramsay realized that Kirk would have to assume direct command of the assault on the American beaches. The Western Task Force under Kirk not only had American ships, but also British men-of-war and support vessels assigned to the

American sector. As Commander Western Naval Task Force, Kirk was the ranking U.S. Navy officer in Operation Overlord.⁴

Having graduated from the United States Naval Academy in 1909, Kirk spent most of his early career in battleships and cruisers, becoming a gunnery expert. Kirk advanced at much the same pace as his classmates and eventually became executive officer of the battleship West Virginia. He also commanded the destroyer Schenck and the cruiser Milwaukee in the 1930s. Before the war Kirk also served with distinction as the gunnery officer for senior commands, an instructor at the Naval War College, and as Naval Attache' in London in 1939. He accepted his appointment to Attache while aboard the Milwaukee in Annapolis and later remarked, "I left the Fleet for good, at Annapolis. I never went back to the Fleet--not that fleet, anyway, --in my life." Kirk's reference to "that fleet," alluded to the drastic changes that occurred within the Navy during World War II as the United States built the largest navy in history.⁵

Thus when the European war broke out in September 1939, Kirk was the Navy's only representative in England. His job was to deal with "the more important questions arising, and maintain contact with higher officer in the British Navy, in the Admiralty, or those holding important commands ashore." During his years in London, Kirk also established many friendships that later helped relations between Allies

during the planning and execution of Overlord. Kirk became especially familiar with the Second Sea Lord Sir Charles Little because the First Sea Lord, Admiral Sir Dudley Pound, was often sick. Kirk later described Little as "very friendly and kind" and stated he "had awfully much to do with him." He also became acquainted with Admiral Ramsay, who was then Vice Admiral Dover and established a friendship with the older officer. Kirk "even went so far as to take a box of chocolates down to Lady Ramsay, and made very pleasant social calls there at Admiralty House." Because Ramsay eventually became Kirk's immediate superior during Overlord, this relationship, more than any other, might have helped resolve the many doctrinal differences between the two nations' navies and might have been a deciding factor in Kirk's selection for Overlord. When later asked if it helped, Kirk replied, "Well, yes and no. The reason why it wasn't completely satisfactory was, of course, he, as well as several other officers in the Admiralty, didn't quite appreciate or know the tremendous power the American Navy had developed."⁶

As attache', Kirk was also exposed to many of the new weapons that Germany would deploy when defending France. While Attache' and acting as the U.S. Navy's only representative in Britain, Kirk received the first reports on German's use of magnetic mines. He and his staff "put our best brains together" to think of a defense against

them, but did not reach the answer until the British informed them of their design for the "chastity belt" or degaussing devise. The British eventually shared their research with the United States, but initially Kirk reported that the British feared telling the United States because "they didn't think our security in Washington was good enough to prevent the Germans from finding out that the British knew exactly what it was and how to beat it."⁷

Kirk returned to Washington on 23 December 1940 and took temporary duty in the Office of the Chief of Naval Operations. On 1 March 1941 Kirk became the Director of the Office of Naval Intelligence. He later accredited his appointment to the fact that he made such good impression during his "speech before the General Board and all the high brass of the Department that they'd decided they were going to make me the Director of Naval Intelligence." In whatever way he obtained the position, Kirk did not want it. He thought of himself as a "blue water sailor" and he "really had no yearning for the cloak and dagger trade." Shortly after Kirk assumed the office, Roosevelt signed the Two-Ocean Act, which created separate Atlantic and Pacific Fleets and declared a State of National Emergency; both these action caused the enlargement of all military services. As a result, Naval Intelligence naturally grew into a much larger command than Kirk originally received.⁸

While Director Naval of Intelligence Kirk felt the

selection boards had passed him over for rear admiral in 1940. Soon after the boards Admiral Adolphus Andrews approached Kirk with the advice, "If you don't get to sea, you're never going to be made a rear admiral." He told Kirk, "you had a certain amount of staff duty, you've been Naval Attache in London, and the Board of Rear Admirals are looking very carefully at the sea duty, especially in command, of the top captains list. I advise you to get out of here and get to sea as fast as you can."

After he made requests all the way to Undersecretary James Forrestall, the Navy sent Kirk back to sea in command of Destroyer Squadron 8. Kirk took command in October 1941 and reported to Admiral King, CinC of the Atlantic Fleet. Kirk's squadron escorted convoys to the "mid-ocean meeting point" near Iceland. Once at the meeting point, he either relieved the British of a westbound convoy or turned his eastbound transports over to them. As an escort squadron commander, Kirk noted that each time his ships left Boston they "left behind from five to ten men who were deliberately over leave." Attributing their absence to American neutrality, he recalled that after Pearl Harbor, this attitude "changed overnight" and thereafter "we never had anybody overstaying his leave." The Navy Department soon relieved Kirk and eight other destroyer squadron commanders in the spring of 1942. Kirk attributed his relief to the Navy's new policy that escort commanders could not be older

than fifty years.¹⁰

After his promotion to rear admiral in January 1942, Kirk returned to Britain in April as the Chief of Staff to Admiral Harold R. Stark and Naval Attache', London. Stark had been in London since King relieved him as Chief of Naval Operations and he had assumed command of American Naval Forces in Europe, which was later designated the 12th Fleet. Once the Allies resolved to invade North Africa, planning between the U.S. and Royal Navies commenced at Norfolk House in London. Kirk, Stark, and Rear Admiral Bernhard H. Bieri represented the U.S. Navy during the initial stages of planning.¹¹

After his second tour in Britain ended in February 1943, Kirk assumed command of Amphibious Forces, Atlantic Fleet in Norfolk, Virginia. Kirk trained the 45th Division for their part in the invasion of Sicily. While in Norfolk, Kirk also examined the reports of previous landings in North Africa and Guadalcanal and directed the development of landing techniques to be used by the American landing forces. Kirk took command in late February 1943 and set sail for North Africa on 30 May.¹²

After a short rest in Oran, Kirk sailed with over 25,000 men for the invasion. Along with Admiral John L. Hall and Admiral Richard Connally, Kirk commanded an American assault force in Operation Husky. During Operation Husky the American and Royal Navies landed seven divisions

against sometimes heavy opposition and during extremely rough weather. Even with the rough weather and opposition, Kirk bet Lieutenant General George Patton, who commanded the U.S. 7th Army, that he could unload over the beaches all of Patton's equipment from his ships in five days. Except for a small amount of ammunition forgotten in the hold of one ship, Kirk finished and sailed away from Sicily in only four days, but he still had to pay his debt, a bottle of whiskey, to Patton because of the forgotten ammunition. Kirk also had a fire support group including a British 14-inch monitor that only joined him after his departure from Oran. The British had created the monitors by mounting a battleship's main turret on the hull of light cruiser or heavy destroyer. This gave them an economical ship with tremendous fire power. With little time to brief the monitor's Captain, Kirk sent him a 6-inch package of orders and the message, "You'll never have time to read all this, and you probably won't understand it, in our language, telling you what we're trying to say--but the answer is this: No matter what's in your way, you get in there." Because Kirk landed his supplies so efficiently, Patton exceeded his planned rate of advance and beat the British to Messina although he had to take a much longer route.¹³

Following Husky, recognizing Kirk's experience during the planning of Torch and execution of Husky, King chose Kirk to command the Western Naval Task Force and sent him to

Hawaii to discuss and compare amphibious doctrine with his Pacific counterparts. Kirk said the details on Husky were particularly important to Admiral Chester Nimitz, CinC Pacific Fleet, because it was the first "full-fledged thing against pretty serious opposition." In Washington they had expected Kirk to lose 20 percent of his ships, whereas he lost none. With Nimitz, Kirk discussed tactics, such as "successful naval bombardment, the question of airplane cover, the anti-mine operations, the camouflage operations, the doctrine of how you form up fleets with all these soldiers aboard them, and so on." Husky had taken place in July of 1943, and after a short time in the Pacific, King called Kirk back to Washington to take command of Naval forces massing in Britain for Operation Overlord.¹⁴

Upon receiving command of the Western Naval Task Force, Kirk knew that he would eventually serve under Ramsay, but when he arrived in London he reported to the United States 12th Fleet under Admiral Stark. Stark had commanded the 12th Fleet and acted as Commander Naval Forces Europe after King replaced him as Chief of Naval Operations in 1942. Kirk's training command was designated Task Force 122 (TF 122). Although TF 122 technically fell under Stark, when dealing with Overlord he only controlled administrative matters. On most operational issues Kirk either acted independently or answered to King and Ramsay.

As Commander Task Force 122, Kirk controlled the 11th

Amphibious Force. King originally formed the 11th Amphibious Force under Rear Admiral John Wilkes in August 1943. Wilkes also acted as Commander Landing Craft and Bases, Amphibious Forces, Europe (ComLanCrabEu). Wilkes' commands trained the landing craft crews and maintained all American landing craft once they arrived in Britain. ComLanCrabEu not only maintained the few American bases in Britain in 1943, but also oversaw the construction of new bases granted to the United States in Britain and Northern Ireland. Wilkes had already distinguished himself as submarine squadron commander in the South Pacific in 1941, and then commanded the light cruiser Birmingham during the invasion of Sicily. In January 1944, Rear Admiral Hall relieved Wilkes as Commander, 11th Amphibious Force and Wilkes retained his responsibilities as ComLanCrabEu.¹⁵

As Commander, 11th Amphibious Force, Hall assumed the added task of conducting joint training operations with Bradley's First U.S. Army in Britain. Initially Hall commanded most of Kirk's seagoing forces while Wilkes controlled the shore-based operations. Hall had been Acting Chief of Staff to the Commander Western Naval Task Force, Rear Admiral H. Kent Hewitt, during Operation Torch in 1942. Hall also commanded a task force alongside Kirk in Operation Husky. While Kirk conferred with his counterparts in the Pacific in preparation for Overlord, Hall landed an Army corps in Salerno during Operation Avalanche in September

1943. On 13 November 1943 Hall sailed his specially fitted amphibious command ship, Ancon, from the Mediterranean to England and reported to Kirk.¹⁶

After Eisenhower doubled the front of the American beachhead in January, King sent Rear Admiral Don P. Moon in January 1944, to land the additional division. Kirk then split Hall's command into Force O and Force U. Hall retained control of Force O and Moon took command of Force U. Hall's Force O trained with Major General Leonard T. Gerow's V Corps for their landing on Omaha Beach and he continued to oversee training for Moon's Force U. Kirk planned for Moon's Force U to land Major General J. Lawton Collins' VII Corps on Utah Beach. Prior to Overlord, Moon had no experience as an amphibious commander. In November 1942 he had commanded Destroyer Squadron 8 and supported the American landings in North Africa. Following Torch, Moon returned to Washington where he worked in CominCh until King assigned him to command Force U.¹⁷

Western Naval Task Force also included Force B under Commodore Campbell Edgar which embarked the 29th Division and was the follow-up force for Hall on Omaha Beach and also acted as a floating reserve. Besides separating his landing forces, Kirk also divided his warships between Omaha and Utah Beaches. Rear Admiral Morton Deyo's group supported Force U while Rear Admiral Carlton Bryant gave fire support to Force O. Whenever the two groups operated together, Deyo

commanded.

Because his forces were to assault the western Normandy beaches, Kirk primarily dealt with Plymouth and Portsmouth Home Commands. Each of the Home Commands controlled portions of the British coast and the ports in those areas. Although the United States shipped thousands of tons of naval equipment to Britain, American ships nonetheless depended on British port facilities for most of their daily needs. The Home Commands were also used to provide the screens for American convoys in the English Channel. Through Ramsay, Kirk worked with British Vice Admirals Sir Ralph Leatham in Plymouth and Kirk's old friend, Vice Admiral Charles Little in Portsmouth.¹⁸

During Operation Overlord all of the previously mentioned commands had a specific role to play. Each developed its own naval plan in accordance with plans issued by higher authorities. After Roosevelt, Churchill, and the Combined Chiefs approved COSSAC's Outline Plan for Overlord at the Quadrant Conference in August 1943, Morgan's Outline became the basis for future planning. From the Outline, the Overlord commanders filled in the details when making their plans. Soon after Eisenhower's arrival in Britain, he expanded the Outline Plan to include a five-division assault instead of three. On 1 February, the commanders under Eisenhower issued the Neptune, Initial Joint Plan. The Joint Plan was necessary to ensure the services understood

who held responsibility for certain areas of the assault.¹⁹

After conducting the necessary joint planning with his peers, Ramsay issued Operation Neptune-Naval Plans on 28 February, 1944. Ramsay's plans covered all matter of major naval policy, naval advice to Supreme Commander, allocation of all naval forces, routing of assault convoys up to Assault Area, coordination of communication arrangements, the program of initial movement, coordination with aircraft, major items of necessary equipment, coordination of methods of unloading, and general control of the buildup to meet the requirements of the Army Group. After conferring with Kirk and Vian, Ramsay updated his original plans and followed them with Operation Neptune-Naval Orders (ON 1) on 10 April 1944. Although they had both worked under the British Admiral Cunningham in the Mediterranean, Kirk and Hall had not become accustomed to the Royal Navy's style of issuing orders. The American Navy issued orders in the broadest effective manner and allowed the unit commanders to decide the best way to accomplish their missions. Ramsay's orders used the Royal Navy system, which traditionally made more of the operational decisions at higher levels. Hall remarked that he had "never seen such complicated, misunderstandable operation plans as the British wrote." He added that "We really used to laugh at the long-winded operation plans that would come out of Admiral Ramsay." Ramsay admitted the British system appeared unwieldy to the Americans, but he

defended his lengthy orders and wrote, "It is still believed that the large size of the O. N.'s was unavoidable in view of the closely knit nature of the operation and the small area in which all movements had to take place."²⁰

Even with Ramsay's seemingly explicit instructions, Kirk, Hall, Moon, and Deyo still had many plans to develop for the units within their commands. As a Task Force Commander, Kirk was responsible for detailed planning of the assault, the loading and sailing of his forces to give effect to the joint plan, the priority of loading of naval stores and equipment in their convoys, and the sailing of all craft and shipping from the Assault Area to Britain. He also made detailed arrangement for antisubmarine and antiaircraft protection, bombardment, subsequent unloading of craft and ships during the buildup, and communications. On 21 April Kirk issued Operation Plan No. 2-44 (ONWEST 2) to the Western Naval Task Force. These plans were not final and Kirk issued changes and updates on 4, 10, and 22 May, with final addenda not arriving aboard many ships until 31 May.²¹

The processing and interpretation continued well into May when Moon and Hall released their Operation Orders on 15 and 20 May. At their level of command, Hall and Moon continued to detail the planning until each craft received orders as to where it should be and when. Fortunately for the individual ship and unit commanders, they did not

receive entire copies of all these naval plans and orders. They only received the finalized plans issued by their Force Commanders.²²

Hall reported that in previous operations there had "been times when it appeared as if Army Commands on various echelons did not agree with the Naval conception of the Naval Commanders's authority in an amphibious operation." He accredited this dispute to the lack of an "up to date" publication proscribing the proper command relationships. During the planning and execution of Overlord, the Joint Plans issued at Ramsay and Kirk's levels with their Army counterparts alleviated that problem.²³

The Navy and Army Commanders for Overlord brought with them detailed knowledge from nearly every amphibious operation conducted against Germany. Even with their experience, Normandy's unique beaches and Germany's careful preparations presented new challenges that had not been faced in Europe. As the target date of 1 May approached, the planners had to decide what time to land, where to land, and how the millions of men in Britain and the United States were to cross the French coast and face the German Army.

Chapter Four

As the planning for Cross-Channel assaults progressed, the Allies faced a changing German strategy on what Rear Admiral Edward Ellsberg termed the "Far Shore." Before the Soviet winter offensives, Stalingrad, and their losses in Africa, the German Army far outclassed any opponent. An Anglo-American assault before late 1943 against the Channel Coast could have eventually met a strong German Army, but by the spring 1944 the German military had suffered many setbacks. The British and Americans had driven them from Africa and invaded Italy and the Soviet Union continued to push Germany back on the Eastern Front with a seemingly endless supply of infantry, tanks, and artillery. Along with territorial losses, each battle drained the German Army, Navy, and Air Force of valuable veterans. As Germany's available frontline forces declined, Allied intelligence reported that Germany increased her dependence in the West on wire and concrete and placed greater reliance on Hitler's "Atlantic Wall."

The principal mission of Field Marshall Gerd von Rundstedt, Commander in Chief West, was to defend occupied France. Although Fuehrer Directive Number 40, of 23 March 1942 declared that the "coast of Europe will be seriously exposed to the danger of enemy landings," little was done that year. They had initiated construction following the surrender of France in 1940, but fortification of coastal

defenses progressed slowly and by fall 1943 only a few regions in the Pas de Calais area and around strategic ports were nearly complete. As a result of German inactivity, for instance, Ramsay told Kirk and Vian on 26 December 1943 that "no reliable evidence exists that the Germans are using or intending to use any form of underwater obstacle off their beaches, either in the form of mines or of wire or concrete or floating obstructions."¹

Hitler eventually recognized these gaps in his "Atlantic Wall." He also realized that the British and Americans could quickly threaten Germany's industrial centers in the Ruhr and Saar. Therefore, Hitler reinforced his orders for strengthened defenses along the Channel Coast in Directive Number 51 on 5 November 1943. Additionally, he appointed Field Marshall Erwin Rommel to command the Army Group for Special Employment in November 1943. Hitler ordered Rommel to inspect the German defenses on the Channel Coast and in Southern France, report on their readiness, and list the actions he felt necessary to improve the defenses.²

As Rommel inspected the available forces and made suggestions regarding their utilization, he found the German Armed Forces High Command (OKW) and Rundstedt did not always agree with his opinion on how to defend France. Rommel concluded that the preparations were far from completion and that armored and mobile units needed to be deployed closer to the beaches. Hitler and the OKW agreed with Rommel's

recommendations concerning the fortifications and the utilization of beach obstacles, but could not supply many needed resources and they disagreed as to where to position mobile infantry and armored reserves in France.³

Because Rommel had been defeated owing to Allied air superiority in North Africa, his strategies differed from those of generals returning from Germany's Eastern Front where the rival air forces played a far less prominent role on the battlefield. Having witnessed Axis lines of communication and reinforcements in Tunisia, Algeria, and Libya destroyed or disorganized by opposing air attacks, he concluded, "that all movement of major formation has been rendered completely impossible, both at the front and behind it, by day and by night." As a result, Rommel proposed that the bulk of his armor be located near the beaches so that they could deploy swiftly and repulse the invasion. This strategy offered the added benefit of limiting German movement across exposed French countryside. Neither Rundstedt nor Lieutenant General Geyr von Schweppenburg, the Commander of Panzer Group West, were as impressed with Allied air power. Thus they proposed to station a reserve near Paris, enabling them to react to landings along most of France's northern coast. Eventually Rommel approached Hitler and the OKW with his proposals and they allowed him to move the 21st Panzer Division into Normandy while Schweppenburg retained the 116th, 12th SS, and the Panzer

Lehr which he held up to a hundred miles from the coast.⁴

The Neptune naval high command correctly supposed that the Germans--as evidenced by the debate among Rommel, Schweppenburg, and OKW--would adopt a purely defensive strategy. The "Assault will be met (on the beaches), and (penetration) broken by (counterattack) by mobile forces," predicted Admiral Ramsay. For their part, the Germans rightly assumed that "the assaulting force will aim for possession of a port." From this information and other intelligence, Ramsay and Kirk agreed on five fundamental points about the Normandy defenses. First, the defenses would be as near to the coast as is physically or tactically possible. Second, the supporting artillery would be sited so as to cover the coast or its seaward approaches. Third, there would be no "second line" of well prepared defenses and the troops manning the coast were likely to stay there to the end. Fourth, German defenses tended to be much denser and heavier near ports, estuaries, and those sections of the coast that might give access to ports. Fifth, the ports themselves were locally defended by a perimeter system. Intelligence suggested that "the picture is that of a continuous hard 'skin', often immensely strong, and occasionally stretched over some vital point such as a port; but never more than 'skin-deep'," Ramsay reported⁵

To execute the German strategy, whether he entirely agreed with it or not, Rommel had to fix priorities for his

projects. He and Rundstedt concurred they could not construct defensive lines in the French interior. To do so and finish Hitler's Atlantic Wall would have been impossible owing to labor shortages and the difficulty of deciding where the Allies were going to advance inland from the invasion site. While disagreeing with Rommel's basic strategy, Rundstedt nonetheless gave him a free hand regarding men and coastal fortifications, but shortages of materials and labor for construction still limited his efforts.⁶

Before November 1942, the Allies had seen the defenses of the Pas de Calais sector receive most of the concrete, landmine, barbed-wire, machine guns, and coastal artillery. The short passage from Dover to Calais meant that the area was highly vulnerable to attack and the OKW concentrated most of their attention and efforts there. With only a twenty-five mile transit, they anticipated attack at Calais because the short distance allowed the Allies to use their air superiority most effectively. Rommel agreed that Calais was the most threatened position, but he also hastened work along the entire coast.

Upon his assuming command of Army Group B, consisting of the Seventh and Fifteenth Armies and the German Armed Forces of the Netherlands, on 15 January 1944, Rommel's command stretched from Holland's North Sea coast, across Belgium, and south to the Bay of Biscay. His three armies

included six armored and nine field infantry divisions, in addition to twenty-four divisions trained and equipped only to hold static defensive positions on the coast. Manpower shortages meant that Rommel eventually had to use these troops as labor battalions for the day-to-day construction work needed to complete defensive installations. These soldiers ably filled the shortages created by the Todt Organization, directed by Reich Minister Albert Speer, but the labor details limited training time and so reduced their combat efficiency.⁷

Hitler established the Todt Organization in 1938 to build the defensive West Wall facing the French Maginot Line. Once Germany conquered France in 1940, Todt moved to erecting defensive positions on the French coast. Most of their work in France initially consisted of casementing naval artillery near ports and in the Pas de Calais. The Todt Organization used few Germans to do its work. Speer's subordinates impressed millions of captured Soviet, French, Polish, Slavic, and after mid-1943, surrendered Italian soldiers. He additionally rounded up slave labor battalions from civilian populations of defeated countries. Despite the obvious problems in relying on slave labor, the Todt Organization proved very efficient: "The Germans and impressed French workers constructed new obstacles at a very fast rate when supplied with materials," Ramsay reported, "in one case 7 staggered rows of stakes, 10 feet between

units and 20 feet between rows, were inserted over a distance of 5,000 yards between 21 and 28 February, 1944." Indeed, given enough time, German defenses may have approached the invulnerability that Hitler specified. Admiral Hall, for instance, noted their continued efforts and reported after D-day of "the presence of construction materials and barbed wire indicated that improvement in the defenses were in progress," when the invasion came.⁸

To strengthen areas he could not adequately fortify Rommel resorted to flooding lowlands behind the beaches. He only left a few causeways leading inland from the beach areas. By giving the Allies limited exits, the Germans felt that if they could not staunch the landing at the beach, they could at least contain any further inland penetrations. For example, according to Ramsay, the landing on Utah Beach appeared to have achieved "partial tactical surprise" because the enemy probably "appreciated flooding of sufficient deterrent."⁹

To detect the approach of an invasion fleet the Germans constructed a system of simple, but effective radar sites along the Channel Coast. The Germans increased the density of the radar sites in their weaker defensive sectors. Operational Intelligence showed this German tactic when they reported on the defenses between Cherbourg and Le Havre and wrote that "in the German point of view this was probably the most vulnerable stretch of the French coast - an

appreciation borne out by the intensive and overlapping shore radar cover." The OIC also reported that "the Channel German shore radar stations were not evincing much intelligence." They attributed the inefficiency of German radars to the fact that "the personnel of these stations was of poor quality."¹⁰

Although Ramsay had reported in December 1943 that the Germans had not utilized any underwater beach obstacle, the situation had changed by April 1944 when he issued his Naval Orders for Operation Neptune. By this date, only four months after Rommel had assumed command, the Germans laid 7,612 beach obstacles on Omaha and Utah Beaches alone. The Germans built five primary types on the American beaches:¹¹

	Utah	Omaha
Ramps	12	450
Stakes	2400	2000
Hedgehogs	1350	1050
Tetrahedra	150	0
Element "C"	0	200
total	3912	3700

The Germans generally used wooden stakes but sometimes substituted steel. They planted the stakes leaning seaward to puncture the thin hulls of an approaching landing craft.

Between the stakes the Germans also ran strings of barbed wire to entangle and slow infantry as they approached the beach. Once the wire caught the soldiers, machine guns emplaced ashore could kill them at will. In his April planning memoranda, Ramsay informed Kirk that the Germans had not attached mines to the stakes or other obstacles, but Eisenhower later reported that "Teller mines attached to obstacles are causing damage to craft especially when retracting." Besides Teller mines, the Germans also placed modified landmines onto the stakes. They simply waterproofed the variety of available German and captured French mines. Kirk and his landing craft crews were aware of the Teller mines and knew they were "thirteen pound explosive charges fitted to beach obstacle and capable of sinking or immobilizing a minor landing craft."¹²

The Germans built their ramps of steel and anchored them to beaches below the high water lines. This obstacle and the Belgian Element "C" were originally designed to be tank barriers, but they adapted well to use on beaches. The ramps inclined toward the beach and allowed landing craft to slide onto the top of them. Once on top, the vessel's own weight pushed the ramp's pointed tip through the hull. This not only rendered the craft useless, but it stranded the boat and its cargo of soldiers several hundred yards from shore and in the sights of German gunners.¹³

The Belgian Element "C" or "Belgian Gate" worked on the

same principle as the ramp but faced the shore and not out to sea. Unlike the ramp, Belgian Gates simply stopped the landing craft. Once stopped, other craft backed up behind the hindered vessel and again German gunners would take their toll. The Germans built the steel gates seven feet tall and eight and one half feet wide. An extra benefit of the Belgian Gates was that they were sturdy enough to have an attached mine explode and still represent an obstacle to further landing craft.¹⁴

The tetrahedra and "Hedgehogs" were smaller obstacles built out of steel or a combination of concrete and steel. The tetrahedra resembled their names. They were four sided structures either two and one half or four feet tall and resembled pyramids. The Germans made the Hedgehogs by welding three pieces of steel together at right angles or joining them with concrete. The Hedgehogs stood five feet and seven inches tall. They closely resembled the caltrops used in ancient Rome to stop a calvary charge. The tetrahedra and the Hedgehogs both punctured the hulls of landing craft and could have mines and barbed wire attached to them. Although smaller than the ramps and Belgian Gates, they could be easily mass produced and planted along the beaches. Ramsay illustrated this fact in his planning memoranda by writing that "2,300 yards of double rows hedgehogs or tetrahedra were laid in four days at a spacing of 26 feet between units, and 100 feet between rows." In

those four days, the Germans increased the number of obstacles facing the Allied assault by 1,020.¹⁵

Finally, the simplest of all obstacles, was not originally designed to be a landing obstacle. The Germans used and improved the sea walls already in place along the coast. Ramsay described them as "a very favorite" of the Germans in his Naval Plan. Once the Germans had finished enforcing the walls they generally stood six and one half feet to ten feet tall and were three to eight feet thick. They also dug ditches forty to sixty feet wide and filled them with water to slow infantry and stop armor. The Germans also excavated some of the ditches to only nine to fifteen feet deep and occasionally covered these smaller trenches for concealment.¹⁶

Flooded lowlands, radar stations, and beach obstacles acted passively by slowing or detecting an invasion force. A key "active" component of the German defense were the mutually supporting machine gun emplacements along the Channel Coast. Although not able to form a continuous line of guns behind the beaches, the Germans situated the weapons densely enough to fire at least two guns into the same targets. Often more than three or four guns could attack a landing craft or wading soldiers in the stronger areas.

Besides machine guns the regular infantry also possessed a variety of mortars to lob shells onto the beaches. The Allies considered mortars extremely effective

in the defense and rated the German 8.1 cm. mortar equivalent to three machine guns. On Omaha Beach alone, the Germans had at least one machine gun or mortar every seventy yards. That number was added to the thousands of basic rifles and submachine guns carried by the German infantry. Although the Germans enclosed many of their machine gun emplacements in concrete and steel, most of them remained open by D-day. The machine gun sites firing directly at the beaches proved susceptible to Naval bombardment, whereas the mortar pits behind cliffs or rises were invisible offshore.¹⁷

In addition to machine guns and mortars the Germans utilized petroleum based weapons in their defenses. Admiral Hall wrote in his Action Report that "In addition to 88mm and 75mm fire the Germans used 200 pound oil filled incendiary rockets." Although they were not as effective as direct fire artillery or multiple mortar rounds, Hall notified Kirk that "At least one LCT was hit by one of these just as unloading was commenced. The craft was totally destroyed." German machine guns, mortars, and improvised projectile had short range and only affected the landing craft as they approached the beaches.¹⁸

The German heavy artillery truly threatened a landing because they could destroy an entire troop transport or LST as the ships waited in their assembly areas. The Germans placed a great reliance on their coastal artillery to deter

or destroy Allied landing forces. Around their ports they place massive guns--such as the 240mm guns near Cherbourg--in turrets or nearly impregnable concrete shelters. The German Navy designed the static coast defense artillery layout but their army manned most of the batteries. The Navy also controlled the warning system and the defense of the sites until enemy assault forces landed. Unknown to the Allies, however, the German emplaced many of their medium caliber pieces facing the beaches rather than offshore.¹⁹

Because the Germans camouflaged their efforts and offshore photography could not see them, their coastal guns designed for enfilade fire remained unknown to the Allies. The word "enfilade" describes fire that is directed along the axis or parallel to the attack and not the usual perpendicular. The primary benefit of this method is the ability to place maximum protection in the direction of the assaulting forces. Ramsay later reported that "they were vulnerable only to direct fire into their embrasure from crossfire." However, guns emplaced for enfilade fire suffered from a reduced field of fire. Hall stated the only advantage his assaulting force received was "the fact that craft inshore might be under heavy fire, but those further out were comparatively free from molestation and scarcely a shot fell more than four thousand yards from the beach."²⁰

The Germans emplaced their coastal artillery in three primary manners: mobile batteries, protected guns, and

casements. The first type, mobile batteries, eventually proved to be the most troublesome. These batteries usually consisted of 75mm to 170mm field artillery units. The Germans stationed them behind the beaches and positioned spotters in well protected bunkers over the beaches. They also used church towers and other tall buildings when they were available. Being mobile, these guns could fire a few well directed rounds at the beaches and move their guns to another location before Naval guns could be spotted onto their positions. The Allies knew of eight possible 170mm emplacements with a maximum range of 32,370 yards in the American sector before the invasion. Repeated bombing attempts by the Air Force did not destroy the guns. Their efforts only caused intelligence to lose their location.²¹

Allied Naval plans referred to the next type of emplacement as "protected." Although they usually did not survive as long as the mobile batteries, the protected guns could potentially cause more casualties because they were usually nearer the beaches. Kirk knew of seventy-three possible fixed emplacements and had to ensure their destruction. These guns were usually positioned for enfilade fire. They had up to ten feet of concrete and earth between them and the beaches and gave direct fire from behind their protection. The Germans gave some of these guns overhead protection and would have finished all of the gun emplacements given time and materials. Even if these

guns did not have maximum protection British Special Operations reported, "it is virtually universal for batteries to have underground reinforced concrete shelters for their crew and ammunition." Due to the shelters, it took a direct hit onto the gun itself to destroy the position. Although a glancing blow could damage the piece or kill part of the crew, reinforcements and spare parts from the bunker could have the weapon firing again in hours. Although the Germans did not expect them to fire as long as the mobile batteries, the protected guns could potentially cause more casualties because they were nearer the beaches.²²

Allied photographic reconnaissance also revealed the Germans encased some of their large caliber artillery piece in bombproof casements. As fortifications progressed, the Germans increasingly tried to institute the use of armor plate. Intelligence informed Kirk the Germans preferred armor plate "because it can be thinner for loopholes, giving a better field of fire." Armor plate was rare and most of the gun emplacements first used six and a half feet of reinforced concrete to make them "bombproof." By 1943 a new standard appeared in the strongest areas and the Germans switched to a minimum thickness of ten feet of reinforced concrete.²³

Remarkably, Kirk and other Naval Commanders would have preferred the Germans worked faster in some cases. The German had their largest batteries in the Overlord area at

Le Havre and in Fermanville, east of Cherbourg. They had mounted 240mm coastal batteries and proceeded to encase them in steel reinforced concrete. The irony of the situation was that, once finished, the casements near Cherbourg would not allow their guns to train far enough east to affect Overlord. Kirk's intelligence reports as late as May 1944 expressed gratification at the enemy's efforts, relating that "construction activity [was] continuing at good pace."²⁴

Equally as important as intelligence on the fixed defenses Kirk faced was knowledge of the quality of the German soldier manning the emplacements. Each division of Rommel's armies protected between thirty and sixty miles of coastline. The density of the troops depended on their proximity to Allied bases. Each division hypothetically had two regiments manning the defenses with one in reserve. Normally each division only had two regiments unless foreigners made up a third. Similarly, each regiment had two battalions on the front with one in reserve to rest troops or bolster a threatened area. Regimental commanders allotted their antitank and infantry guns to individual units at key points of defense.²⁵

Although the deployment of the regiments in Normandy may have been standardized, the quality of men in the units differed drastically. Before the assault, intelligence told Kirk and Bradley they face "static division" made of

generally substandard German soldiers and foreign conscripts. These units possessed no means of transportation and once the Allies drove them from their emplacement, they had no way of fighting on a mobile front. The Americans thought they faced the 716th and the 709th Static Divisions. Unknown to the Allies, the Germans had moved the 352nd Field Division into the region behind Omaha Beach only days before 6 June. This division not only had an additional regiment, but it had been trained and equipped for "counterattack, not in positional defense." With this additional division and their complex network of machine guns, obstacles, and artillery, German land forces in Normandy presented a fearsome obstacle to any invasion.²⁶

Of German offshore naval defenses, Kirk most feared their E-boats and minefields. His anxiety regarding E-boats had been continuous since his appointment in November 1943 and was eventually confirmed during a training exercise in April. The Germans referred to the E-boats as "Schnellboote." They carried two torpedoes with two reloads and could cruise at nearly forty knots. With their speed the E-boats could race into coastal convoy lanes, fire their torpedoes, and leave the area before escort screens could react. Before D-day, intelligence informed Kirk that the Germans could deploy as many as fifty to sixty E-boats against his invasion fleet. To protect their E-boats while in harbor, the Germans built large bombproof pens. These

pens largely resembled those used by U-boats and, like the U-boat pens, the Air Force allowed the Germans to complete them with little harassment.²⁷

Apart from the E-boats, the Germans also had five destroyers, nine to eleven torpedo boats, fifty to sixty R-boats, twenty-five to thirty "M" class minesweepers, and sixty miscellaneous craft capable of disrupting an invasion in Normandy. The R-boats were similar to the E-boats but they primarily laid mines and escorted convoys. Of the miscellaneous craft in the area, the Germans had converted thirty Tank Landing Craft III (TLC) and intelligence reported they could seriously threaten invasion forces.²⁸

To produce the TLC III, the Germans had armed and armored landing craft originally built for Operation Sea Lion. Additionally, the Germans welded artificial bows onto some of the landing craft to improve their seakeeping ability. When the OIC described the TLC III, they stated, "these vessels were formidably armed--they were navigable in shallow water--they were almost unsinkable in attack by surface forces and there was no doubt that they could create havoc among concentration of landing craft." They also added, "On the few occasion when MTB's [Motor Torpedo Boats] had encountered these craft their [the TLC's] firepower had been overwhelming."

Besides the German surface forces, Admiral Karl Doenitz's submarine command had 130 U-boats that could

immediately enter the channel. Of these U-boats, twenty were of less than 200 tons and were better suited to operate in the congested waters of the channel. The Germans had also fitted some submarines with snorkels to the surface so that they could charge their batteries while submerged. The Allied Air Forces made this necessary with their incessant patrols over the Bay of Biscay and any routes approaching the English Channel. These submarines, along with a few destroyers, E-boats, and TLC's were all that the German Navy had to face the greatest invasion armada in history.

These forces were small, and the Germans had limited experience with combined operations, but they appeared very effective and were greatly feared. OIC had detected the German naval plan for defense of France on 4 October 1943, which the Germans codenamed "Wallenstein." Allied intelligence also observed a German naval training operation in February 1944. The OIC described the German operation as a "flexible, predetermined plan put into operation with great speed and minimum of fuss, together with the utmost utilization of all naval vessels down to the oldest and most insignificant trawler." This plan also called for naval units in the Baltic to transfer west and reinforce existing units. Finally, OIC reported the local units "attack was to be made regardless of loss" and that "all effective naval surface opposition was at an end within forty-eight hours."²⁹

Although Germany launched hundreds of submarines and

perhaps the best battleships in the world, they had invested little in coastal craft capable of laying mines. The Germans often used what mine laying craft they did have, the R-boat, to escort coastal convoys. Even with Germany's limited naval assets, Allied intelligence reported that the Germans laid three lines of mines across the Channel in the Bay of the Seine and they often used these minefields to protect their coastal traffic. Kirk also had reason to suspect that the R-boats and E-boats planted mines off each of the invasion beaches. Ramsay reported that "The Allies suspected that the Germans had laid some of their minefields near the beaches as 'trap minefields'." These fields forced landing craft into the ranges of German coastal batteries.³⁰

The Germans possessed mines that the Allies expected and also mines which remained secret until the invasion. Although the Allies were aware of contact, magnetic, sonic, and delayed action mines, the Germans had secretly developed a pressure activated mine. The Navy referred to these pressure mines as "oyster mines." The Germans invented the oyster mine early in the war but the German Naval High Command denied its production because they feared the British might discover their secret and reproduce it. Hitler later intervened and Germany produced 4,000 mines. The German Air Force stored them in underground bunkers near their airfields. The Air Force did not deploy these mines before the invasion because the German Navy continued to

fear Allies would capture a mine and use a similar version against Germany in the Baltic.³¹

Germany's Air Force represented their final defense against an invasion. Unlike the German Navy, their Air Force had received a substantial part of Germany's war economy and had once been the most powerful in Europe, but the Army Air Corps and Royal Air Force had nearly driven the Germans from the sky in the early month of 1944. Repeated raids on airbases, factories, and petroleum centers reduced the German Air Force to a token force that could effectively operate only at night.

Chapter Five

When Admiral Kirk and the other Neptune commanders began writing their plans, they had to balance various factors. COSSAC had already selected the coast of Normandy, just east of the Cherbourg Peninsula before Kirk arrived in London, Kirk nonetheless had many of miles of shoreline from which to choose for his two Assault Areas. He had to consider the nature of the sand composing the beaches, the available exits to inland areas, and the expected defenses in the area in choosing the exact landing zones. Also, as he wrote his orders he had to anticipate the number of landing craft and gunfire support ships he could reasonably expect from the U.S. and Royal Navies. Kirk modeled his assault plans on lessons learned by the Allies in the Mediterranean and by the U.S. Navy and Marines in the Pacific Theaters.

Several operations during World War I, especially the disaster at Gallipoli, suggested the difficulties of assaulting defended beaches from the sea against modern weaponry. In Britain, the Royal Navy and Army updated their Combined Operation Manual and the Royal Marines occasionally trained for amphibious warfare. For the most part, however, the interwar Admiralty held the view that forced landings against well-sited heavy artillery and supporting mobile infantry would necessarily fail. Combined operations research in Britain earned legitimacy with the appointment

of Admiral of the Fleet Sir Roger Keyes as Director of Combined Operation after the debacle of June 1940 to carry out Churchill's strategy of raids and small landings preparatory to a reentry onto the continent. For many reasons, from Keyes' age to political disputes with Churchill, on 19 October 1941 Churchill relieved Keyes and appointed Commodore Lord Louis Mountbatten to replace him and become Commander Combined Operations, much to the distress of the service chiefs. With the appointment, Mountbatten received the rank of Vice Admiral with equivalent ranks in the British Army and Air Force and Combined Operations also received a seat on the Chiefs of Staff soon after Mountbatten's assignment.¹

Informed less by World War I and more by joint operations during the Civil War and the 1898 conflict with Spain, the Americans were more confident about amphibious operations. Moreover the very character of their main interwar strategic dilemma--how to advance across the Pacific to recover the Philippine Islands from Japan in Orange Plan war--forced the U.S. Navy to develop a new amphibious doctrine. In the United States, amphibious warfare exercises seldom involved multiple services and did not resemble British Combined Operations. The Army and Navy debated whether to train Army divisions for ship-to-shore assault or to assign that mission wholly to the Marine Corps. Prior to 1940, only the Marine Corps received any

amphibious training, but in the summer of 1941, the War Department issued a directive for Army Divisions to begin similar exercises. In February 1941 King had created the Atlantic Fleet Amphibious Force and asked for an Army Division and by August 1941 the Army and Marine Corps conducted joint landings under the title of First Joint Training Force. As the war progressed in Europe and the Army became more adept at amphibious warfare, the Joint Chiefs assigned the responsibility for European landings to the Army and shifted the Marines to the Pacific Theater. Referring to a conference in June 1942, Mountbatten said that Admiral King stated the "U.S. Navy should have nothing to do with amphibious operation in Europe as it was only interested in the Pacific," because Roosevelt was restricting the Navy's manpower and King was having difficulty manning landing craft. General Marshall fully agreed with King and offered to man landing craft with Army personnel and raise Engineer Amphibious Battalions to carry out the task.²

By 1944 Kirk and his staff had been closely associated with landings in the North Africa, Sicily, and Italy, but they had little exposure to the lessons being learned in the Pacific. Following Operation Husky in July 1943, Kirk flew to Hawaii to discuss tactics with his counterparts in the Pacific but felt that he learned little. By that summer the Navy had not assaulted any strongly defended beach, but by

December the Navy and Marines had taken the heavily fortified Tarawa Atoll. To update his information, Kirk asked Admiral Nimitz to provide him with the "gunfire support plans made by principal commanders at Tarawa and Makin as soon as possible" to "assist formulation of our own plans."³

Many historians also attribute the success of Overlord to lessons learned from the failures at Dieppe. Hall questioned whether the Dieppe disaster contributed to amphibious tactics and called it a "little bloodletting that somebody thought was necessary to do to build up the spirits of people and make them think that they were in combat." He added that he thought the Allies learned "a lot more at Tarawa and Guadalcanal and in Sicily and at Salerno." Although the experience gained at Dieppe contributed little to the tactics used during Overlord, the Allies learned that a successful amphibious assault needed more air and gunfire support, an isolated enemy unable to quickly reinforce his positions, and that they could not directly attack ports but needed to seize nearby beaches that offered less resistance and no streetfighting.⁴

Even before Pearl Harbor, British and American naval commanders understood the great need for specialized landing craft and the necessity of overwhelming naval gunfire support. The Navy addressed the requirement for specialized landing craft before the war and developed landing craft in

1936 but did little to create a truly capable amphibious force. Soon after war broke out in Europe, Britain began placing orders for more capable landing craft, such as the newly developed Landing Craft Tank(LCT) and Landing Ship Tank(LST). Joint research by Britain and the United States eventually developed many different landing vessels. They ranged in size from the platoon-sized Landing Craft Vehicle/Personnel(LCVP) and Landing Craft Mechanized(LCM), to the larger Landing Craft Infantry(LCI) and LCT, up to even larger LSTs and Landing Ship Dock(LSD). Between these extremes, the Allies built many other landing craft designed to land troops, vehicles, and supplies or provide close fire support for the beaches.⁵

Manufacturing these new ships and craft and training their crews became the key logistic consideration of Overlord. Churchill's statement, "the destinies of two great empires . . . seemed to be tied up in some god-damned things called LSTs," exemplifies the importance of landing craft. The Combined Chiefs selected the United States to build all the LCIs, LSTs, and LCVPs, because Britain's already strained shipbuilding economy could not produce the large LSTs and LCIs or thousands of the smaller LCVPs. On the other hand, British yards built most of the Landing Craft Tank (LCT) used in Normandy. The United States and Britain also built many other landing ships and craft used by their individual forces, but the aforementioned classes

were the most heavily produced.

As D-day approached, Kirk did not know until an uncomfortably late date exactly how many LSTs he could plan to use in the assaults because the United States not only had to provide for landings in the European Theater, but also to support the expanding operations in the Pacific. The United States built the LSTs and smaller craft used in the Mediterranean during the First Landing Craft Program from April 1942 to May 1943. Roosevelt and the Joint Chiefs had instructed the War Production Board (WPB) to initiate that program to give landing craft production priority over other military and civil building programs. Once Marshall and King realized that the British were unwilling to launch a Cross-Channel attack in 1943, King persuaded the President to lower the priority for large landing ships so as to increase the priority for competing destroyer escorts. Not until after the Quebec Conference in August 1943 and notification of the War Production Board in September, did landing ships again receive the highest priority for tools, material, and skilled manpower. Nonetheless, COSSAC found it difficult to ensure the lift necessary for the three assault divisions in its Outline Plan. The addition of Utah and Sword beaches by Eisenhower and Montgomery in January 1944 raised additional questions concerning the availability of amphibious lift. "Will the additional lift asked for Overlord be provided?" Eisenhower asked the Joint Chiefs on

27 January, "All plans and training considerations hang on the answer to this one question."⁶

From previous operations the Allies not only realized they needed specialized landing vessels, but also improved fire support craft to accompany the landing craft to the beaches. To this end, the British armed LCTs. British ingenuity eventually produced the Landing Craft Gun Large (LCG(L)) armed with two 4.7-inch Naval guns in two turrets. They also built the LCT(A) which carried a 25-pounder or 95mm gun. Additionally the British provided Landing Craft Flack (LCF) to provide close-in antiaircraft defenses against attacking German Air Force planes. The LCF carried either eight 2-pounder antiaircraft guns and four Oerlikon 20mm machine guns or four 2-pounders and eight Oerlikons. The final close-support craft used by Kirk was the Landing Craft Tank (Rocket). A "one shot" weapon, these LCT(R)s carried either 960 or 1042 rockets and withheld their fire until as late as possible. The addition of two divisions also increased the demand for production of these fire support craft and the British eventually resorted to building landing craft in town streets.⁷

To overcome the lack of landing craft, the Allies resorted to many obvious and some drastic measures. For instance, they successfully experimented with increased loading of the craft they already possessed, which decreased the number of landing craft needed. One method was

instructing the British on the American system of loading the LST, which allowed them to carry considerably larger numbers of troops and vehicles. The United States also conducted successful trials to increase the loading of amphibious craft aboard LSDs. The Navy also proposed increasing the readiness of LSTs already in Britain. Ramsay had only planned for only 90 percent of the LSTs in Britain to be operational for Overlord. Readiness and operational attrition were the sources of a major dispute between Ramsay and Kirk, the Americans advancing a far more optimistic figure than the Royal Navy was inclined to accept. Kirk finally convinced Ramsay to plan for 95 percent of the American LSTs to be ready. "I was very loath to gamble on this and I only accepted higher figures for U.S. LST of 95 percent after Rear Admiral Kirk had argued them," Ramsay recorded.⁸

Admiral Hall also proposed the "drying out" of LSTs to decrease the time necessary to unload and thus decrease the turnaround time to Britain. Using that method, Hall stated he could "unload a thousand LSTs at a time over the open beaches." He planned to "run them in there on a half-falling tide, dry them out, run the equipment off, let the tide come in, float them, and sail back to Britain to embark another load." He reminded the British "That's what they were built for." Ramsay feared that beaching the ships would break their backs and forbade Hall to use this

method.⁹

General Bradley suggested another method to make up for the lack of LSTs and ensure an all-weather supply of ammunition when some time before the invasion he had talked with Kirk and expressed concern over the Navy's ability to supply ammunition to his divisions ashore. From LSTs, the ammunition could roll onto the beaches in the same vehicles in which it crossed the Channel. Lacking LSTs, however, sailors would have to use cranes to lift the supplies off conventional ships into smaller boats which would bring them ashore. This "was not especially fast and nearly impossible in the heavy seas," Kirk recalled. To overcome this problem, Bradley suggested "the use of car ferries taken from the Eastern Seaboard, towed to England, loaded to the gunnels with ammunition, and grounded soon after D-day." The Navy eventually commandeered four ferries from the New York, Boston, and Baltimore Harbors and towed them to Britain.¹⁰

After all other options had been examined, Eisenhower had two final possibilities to furnish the lift for the two added divisions. The first decision was quickly made in January when he delayed D-day from May until June to allow the additional month's production of landing craft in the United States to provide landing craft for Overlord. Eisenhower's second option required much more thought and debate. He could also cancel the simultaneous invasion

planned for Southern France, code-named Operation Anvil, which he wrote that he was "convinced" would be "of great assistance to Overlord."¹¹

The question of canceling Anvil caused the United States and Britain to change roles on Mediterranean strategy. Throughout the war the Joint Chiefs had been reluctant to increase American participation in the Mediterranean whereas the British were unwilling to invade Northern France. When faced with the Anvil question, the British advocated the abandonment of Anvil for the sake of Overlord and to continue the Italian offensive north of Rome. Admiral Cooke related the American position on Anvil when he wrote Kirk that Anvil mostly affected the buildup. He wrote, "Herein is where Anvil is very important, not only to divert German division[s], but to divert German replacements, transportation, ammunition, etc." Cooke had also been informed of a British proposal to stage a demonstration off France's Mediterranean coast instead of Anvil but he wrote a "threat Anvil may divert German divisions but it will not divert German replacement men and materials."¹²

The Joint Chiefs refused to cancel Anvil, but allowed Eisenhower to decide if it should be delayed. On March 20 he signalled Marshall, "I firmly believe that Anvil as we originally visualized it is no longer a possibility," and ordered that Anvil be postponed to provide the necessary

LSTs for Overlord. Although American planning changed considerably after Anvil's postponement, Cooke felt that the British had never expected to carry out Anvil. "The British had not given a list of ships associated with Anvil," Cooke told King, "They were just ignoring the landing and had no intentions of going through with it." Even counting one month's additional deliveries, and the landing ships originally assigned to Anvil, Kirk could only plan to have a few, if any, reserve LSTs to replace losses on D-day.¹³

The planners next considered the problem of procuring gunfire support ships. Earlier landings in the Mediterranean and the Pacific showed the effectiveness of naval gunfire against defensive positions, especially fixed artillery and counterattacking armored formations. To ensure the success of Overlord with minimal casualties, Kirk wanted to furnish as great a weight of support as possible. A legacy of planning for Sledgehammer, Roundup, and COSSAC's version of Overlord was an agreement between Admiral Pound and Admiral King that the Admiralty would provide all the covering and gunfire support ships for a cross-Channel invasion. Before Eisenhower expanded COSSAC's Outline Plan for Overlord, the Admiralty had assigned only two battleships, three monitors, and fifteen cruisers to the Neptune task force for fire support. Ramsay had already assigned a number of these ships to Kirk's Western Task Force. By January, Ramsay realized he needed additional

warships to support the two new beaches. However, the Admiralty was reluctant to provide additional warships from their Home Fleet.¹¹

Even before Eisenhower added Utah and Sword beaches, Kirk had realized that his Task Force needed additional gunfire support ships to silence Germans batteries in Normandy during the invasion. He had already requested more ships from Ramsay, who could get no more from the Admiralty. Kirk then informed King of the situation but King initially refused to send additional warships because he believed the British were capable of providing much more. King primarily argued that the British did not need to maintain such a large reserve in their Home Fleet to meet the danger of Germany's few remaining capital ships, the heavy battleship Tirpitz and pocket battleship and heavy cruiser Admiral Scheer and Lutzow, and prevent them from reaching Britain or the commerce routes. As of 25 December 1943, Kirk informed King the Royal Navy had nine battleships (two in refit), one heavy and seventeen light cruisers and thirty-six destroyers based on Scapa Flow. Of the seven frontline battleships at Scapa Flow, King saw that the Royal Navy only assigned four to support Overlord. In January 1944, the new First Sea Lord, Admiral Cunningham, announced that he also intended to retain the British battleship Duke of York and the French battleship Richelieu in the Home Fleet to counter a breakout by Germany's two remaining pocket battleships,

two heavy cruisers, or possibly the Tirpitz. The First Sea Lord declared, "The Home Fleet strength is not to be reduced below this." Even after British X-craft crippled the Tirpitz in March, the Admiralty refused to reduce to strength of the capital ships of the Home Fleet to augment Overlord.¹⁵

After a short refusal to send warships to see if the Admiralty would eventually reinforce the bombardment groups, King pulled two battleships off escort duty and delayed the transfer of the newly refitted Nevada to Nimitz, thus providing Kirk with more American warships than he requested. But each time the United States added to Kirk's Task Force, both Kirk and King worried that the Admiralty would withdraw an equal number of Royal Navy ships from the operation. Admiral Stark first expressed this American concern when he informed Cunningham on 29 March 1944, that King was sending more fire support ships and added that he hoped these vessels would "be in addition to those British ships already allocated to our sectors and not replace any of them." Rear Admiral Cooke bluntly told Kirk that CominCh feared that Cunningham would send two of the Royal Navy battleships to the Mediterranean should the Navy Department assign Kirk the two he had requested. Kirk also knew Ramsay might use the deployment of American warships to the Western Task Force to justify transferring British ships to the Eastern Task Force. On 12 April, he cautioned Hall and Moon

that King had sent the battleships Texas and Arkansas along with nine additional destroyers, but warned that he felt Ramsay would shift the British cruisers Quincy and Ramilles and five or six destroyers to Vian's task force.¹⁶

Although convinced that the Admiralty could supply more warships, the American flag officers also realized that U.S. Navy battleships, cruisers, and destroyers were superior to those the Royal Navy could provide. Hall made the point to Kirk in March, pointing out that in the Royal Navy "only battleships, monitors and cruisers can participate with reasonable accuracy in shore bombardment while underway" whereas U.S. Navy destroyers operated the necessary fire control radars. "British ships will experience great difficulty in splitting a battery," he worried, and their "destroyers are not equipped with stable elements and must split the roll." Hall warned Stark that if Western Task Force relied solely on British heavy warships, the overall "gunfire support of the landing would be inadequate." Kirk agreed, emphasizing another limitation of the Royal Navy's destroyers: "The required intensity to effect complete neutralization along with destruction requires numbers, not only numbers of hulls, but numbers of guns per hull." In short, because the Royal Navy destroyers carried fewer and smaller guns than their American counterparts, the weight of their broadside was considerably lighter. This was a problem because "Sea room, or rather lack of it, also

dictates the maximum guns per hull."¹⁷

Although much of the controversy revolved around securing sufficient fire support, Kirk had to incorporate other less glamorous subjects, such as beach selection, into his planning process. By the time Kirk arrived in London, the American and British realized that any beach could be taken with sufficient assault forces. Therefore, in beach selection, defenses were a secondary concern when compared to the number of exits in beach selection because Overlord was more of a bridgehead than a beachhead. With this in mind, Kirk examined the number and quality of beach exits, the countryside beyond the beaches, and the composition of the actual beaches as he selected the locations for his landing sectors. Without consideration of these factors, the invasion might have driven the Germans from the beaches but could nonetheless have eventually failed if the Germans employed their reserves faster than the Allies reinforced their beachheads.

When the COSSAC staff was the primary planning organization for Overlord, they place a great deal importance on the terrain behind the beaches. They recognized that concentrating the landings on the Cotentin Peninsula would have allowed the Allies to capture Cherbourg more quickly, but also considered that the Germans could easily defend the narrow base of the peninsula. Morgan finally had to shift the landings east of the Vire River

Estuary. With the addition of Utah Beach in January, part of the invasion moved onto the eastern shore of the Cotentin. Because the Vire River Estuary split Omaha and Utah, the importance of a quick buildup to unite the American beachheads increased. Inasmuch as the countryside behind Utah Beach was primarily flat and low, Kirk's forces approaching Omaha Beach faced rugged cliffs with narrow draws leading to the interior. The Germans had concentrated their fortification in these draws because they were the only exits suitable for vehicles. Kirk had to ensure that his landing craft arrived at the proper areas or the troops would be forced to cross in front of German defenses along the beach to reach their exits.

Another factor that Kirk and Ramsay considered was the composition of the sand on the beaches. This may seem insignificant when compared to the number of machine guns in the area, but the nature of the beaches played a key role in the selection of the Overlord beaches. There were many different types of beaches along the northern coast of France. At Dieppe the British had not accounted for tanks being slowed or trapped on the loose shingles in the area. By the time Kirk reached Britain, the Allies had come to appreciate the importance of beach composition in the selection and planning processes. Captain Strauss, who had worked for Mountbatten in Combined Operations and as a planner for both Kirk and Ramsay, recalls that at Dieppe the

tanks got caught on "shingles" and could not get across the beaches. The shingles he refers to are similar to slate and are formed in easily separated layers that simply break away as a tank tries to cross them. Once the shingle momentarily halted the tanks, they made easy targets for German gunners. The planners for Overlord made extreme efforts to determine the exact composition of the Normandy beaches even to the point of sending commandos ashore to take beach samples.¹⁸

The location of his training and supply ports furnished by the British also affected Kirk's planning. Because some of his convoys sailed from as far away as Northern Ireland and the west coast of Scotland, Kirk had to design a complicated sailing schedule to ensure the simultaneous arrival of his task force off the Normandy beaches. In his departure schedule Kirk had to account for both the great distance and the limited speed and ranges of many of his landing craft. Captain L. S. Sabin, who commanded the gunfire support craft group and escorted a convoy of landing craft, reported that his unit could only make five knots. His and other landing craft convoys were slow not only because of the design limitations of their craft, but also because they towed causeways and dumb barges to ease unloading.¹⁹

When routing his convoys, Kirk not only had to ensure their arrival but also make allowances for airborne transport carrying paratroopers passing over his task force.

The Air Force originally planned to fly directly over Kirk's convoys of landing craft and merchant transports and to simplify this they had asked for Naval ships to withhold all fire in certain areas during the passage of the aircraft. Ramsay informed Leigh-Mallory that "I am not prepared to accept the statement that this would 'involve no great risk' to naval forces concerned." The danger to surface ships may not seem obvious, but Kirk wrote to Ramsay that the coinciding routes not only threatened "our troop carrying aircraft from naval gunfire" but also "to naval vessels from enemy aircraft due to restrictions thus imposed on our fire." Despite the danger, Leigh-Mallory insisted on using his planned routes, thus forcing Kirk and Ramsay to create an "aircraft corridor" that did not pass immediately above their ships. Even with this compromise Ramsay concluded the aircraft would still pass "uncomfortably close" and he informed Moon that he relied on him and the other Force Commanders to do their "utmost to ensure that troop carrying aircraft are not fired on by Forces under your command on either outward or return passage."²⁰

Another factor that Kirk had to resolve were the times for H-hour. Again, his superiors had already mandated a general time for the landing as they had for the assaults areas. Ramsay stated, "As H-hour was linked to tidal conditions D-day was dependent on it." He wanted to have H-hour four hours before high tide and an hour after

nautical twilight. Ramsay deemed this the best time because it allowed for easy withdrawal of landing craft and gave the demolition teams time to clear the beaches of German obstacles and mines. Ramsay wrote they also wanted "to allow an adequate period of daylight for the pre H-Hour observed bombardment."²¹

From Kirk's point of view, an hour before low tide would have given his "frogmen" even more time to prepare for the waves of landing craft. He requested that his Forces U and O be allowed to land earlier. Ramsay might have tried to choose a different date to allow Kirk the extra time, but the forces assaulting Juno Beach had to cross the shoals off Calvados. Their craft would have run aground if H-hour had been closer to low tide. Therefore, Kirk and Ramsay had to compromise and even though Ramsay did not allow Kirk to plan for a landing an hour before low tide, he finally allowed five different H-hours. He let the first assault vary between "0630 as the earliest on the Western Task Force Front to 0755 as the latest" on Juno Beach.²²

Taking all the previous factors, plus dozens of other smaller constraints into consideration, Kirk prepared his naval orders for the Western Task Force. As can be seen, Kirk had to follow many constraints when writing his orders. In an operation of Overlord's immensity, very little independence could be allowed. Regardless of restraints, Kirk's tactics differed considerably from those used by

Admiral Vian's Eastern Task Force. Even though the bulk of these orders were issued by early May, they were not absolute. Kirk's orders had to continue to change with events up to only a few days before D-day.

Chapter Six

The Initial Joint Plan, written by Ramsay, Mallory, and Montgomery and issued on 1 February 1944, provided that the Allies would land five infantry and drop two airborne divisions inland between Ouistreham and Quineville. It also laid out tactical and strategic goals and gave each service arm a mission to fulfill. Not until the Expeditionary Force and Task Force Commanders issued their plans and orders, were the exact times for various events and movements, locations, and units assigned. All levels of planning for Neptune included a preparatory phase, an assault phase, and a follow-up stage to continue the land campaign after the assault forces had secured the beachhead. In each subordinate level of planning the orders became increasingly explicit, until unit commanders finally issued their orders to the individual aircraft pilots, platoon commanders, and ship captains.

The preparatory phase of the Overlord plan outlined the build-up and training of the necessary forces. For the U.S. Army Air Force, the build-up had started with the initiation of strategic bombing in 1943 and continued during their execution of Operation Pointblank to destroy Germany's air force. The U.S. Army and U.S. Navy, however, had to shift their efforts from the Mediterranean to Northern France in the fall of 1943. Some Army divisions arrived in Britain during Operation Bolero, but only a small percentage of the

over one million troops garrisoned in Britain by June 1944. The Navy had also shipped landing craft to Wilkes and Hall's 11th Amphibious Force, and on 24 December 1943 Stark advised Kirk that he had received over 150 more LCVPs and LCMs and intended to reroute additional craft to other theaters. However, once Eisenhower expanded the assault force for Overlord, the Navy Department had to deploy additional landing craft to Britain. The buildup phase of the plan continued into the week before D-day, when the last of Kirk's destroyers joined the Western Task Force.¹

Kirk began training in Britain with General Bradley's First U.S. Army in March 1944 with Operation Duck. These exercises continued through the spring with Operations Beaver, Fox, Parrot, Tiger, and ended with Fabius I on 4 May. Vian's Eastern Task Force and Dempsey's British 2nd Army trained in Fabius II-IV. In Fabius V, Kirk and Vian simultaneously exercised their followup forces. Bradley's divisions needed the exercises because only one of his divisions had previous amphibious experience and most of his units had no amphibious assault training. Although the Navy had conducted three large landings in the Mediterranean, many new landing craft and fresh crews were attached for Overlord. According to Captain Sabin, the crews of the landing craft, much like the soldiers they were to carry, had only received "elementary" training in the United States before arriving in Britain.²

Overlord's assault phase followed the buildup and training during the preparatory phase. The assault phase was to consist of the movement to Normandy and the attack on the beaches. Inasmuch as both aircraft and ships were to transport troops across the Channel, the Naval and Air Commanders exercised extreme caution in devising their routes. The Combined Chiefs had assigned responsibility for the easternmost beaches to the British and Canadians, so they stationed their forces on the east coast of England and Scotland. American forces responsible for the western two beaches, assembled in Cornwall, Wales, and Northern Ireland, and on the west coast of Scotland. Because Ramsay had to ensure the simultaneous arrival of both forces off Normandy, his plan not only laid out when he wanted each unit put to sea, but also most aspects of the movement that American practice usually left to subordinate commanders. Hall openly complained about the orders and Ramsay admitted they were large, but he refused to rewrite the document and all commanders, both American and British, followed the plan as best they could.³

Once each force arrived off the beaches, Ramsay intended to shift most of the responsibility to the Task Force and Force commanders in their command ships offshore. Although Ramsay's instruction concerning the movement plans were extremely detailed, he was surprisingly brief when dealing with the assault phase. Ramsay concentrated his

planning primarily on the composition of the task forces; not only did he have to provide each task force with adequate amphibious lift, but also with minesweepers, gunfire support craft, bombardment shipping, tugs, merchant transport, coasters, Rhino Ferries, and command and control ships. Altogether, Ramsay and his staff assigned 1,212 warships, 4,125 amphibious craft, 735 ancillary craft, and 864 merchant ships to units of the Allied Naval Expeditionary Force. To simplify command relationships, the supply of the warships, and to keep each force as nationally homogeneous as possible, he assigned all American warships to Kirk's Western Task Force .⁴

The Admiralty had agreed to supply all the supporting warships--and, ultimately, furnished most of them--but the U.S. Navy provided a considerable number of battleships, cruisers, destroyers, and patrol craft. King gave Kirk's task force the added firepower of the World War -era 12-inch gunned, 27,000 ton battleships Texas and Arkansas, and the slightly younger 14-inch gunned, 29,000 ton battleship Nevada. Additionally, Kirk commanded the 8-inch gunned heavy cruisers Augusta (9,200 tons), Albatross (9,950 tons), Quincy (13,000 tons), the Royal Navy light cruisers Glasgow, Hawkins, Enterprise, and Black Prince, and the French light cruisers Montcalm and Georges Leygues. Kirk placed all the warships, except his Control Group centered around the heavy cruiser Augusta, under the command of Admiral Deyo. In

turn, Deyo assigned the Arkansas, Texas, Glasgow, Montcalm, Georges Leygues, and three British Hunt-class destroyers to Rear Admiral Bryant for the support of Hall's Force O. Deyo retained the Nevada, the British battle-monitor Erebus, the Tuscaloosa and Quincy, and the British cruiser Hawking, Black Prince, and Enterprise to provided gunfire support for Moon's Force U.⁵

Because the Free French squadron, consisting of the George Leygues and Montcalm was commanded by French Rear Admiral Jaujard, who was senior to most of Kirk's subordinates, Kirk wrote Ramsay about the command relationship with Jaujard. He wanted to be sure that Jaujard's command extended "to those ships only and that succession of command of forces in which these ships operate will be through U.S. or R.N. officers," and Ramsay agreed with Kirk's understanding.⁶

In addition to the battleships and cruiser, King attached thirty-four American destroyers to the Western Task Force. Kirk assigned seventeen of his destroyers to his Control Group as escort units and as a tactical reserve. He provided Hall nine and Moon eight of the remaining destroyers as close fire support ships. In addition to bombardment ships, further fire support was provided by the modified LCTs supplied by the British. Kirk placed all these craft under Captain Sabin, who retained control of the craft assigned to Utah Beach and delegated the vessels

supporting Omaha Beach to American Lieutenant Commander L.E. Hart. Sabin's force consisted of four LCG(L), four LCF, five LCT(R), and eight LCT(A); Hart's included five LCG(L), seven LCF, nine LCT(R), eighteen LCT(A). This total of 60 craft for the Western Task Force compared to 109 for Vian's British Eastern Task Force, but the fractions were proportional inasmuch as Kirk was to land fewer divisions than Vian and was to operate nearly as many bombardment ships as his counterpart.⁷

Kirk would also operate many other smaller vessels, including, 118 of the 287 minesweepers off Normandy and 113 of the 495 coastal patrol craft involved. Moreover, he commanded two British frigates and four corvettes, eighteen American PT boats, and nine British antisubmarine trawlers, but most of the vessels listed in the Overlord plans were either merchant ships or amphibious landing craft and ships. Western Task Force was to operate 1,700 landing vessels on D-day, ranging from an 8,000 ton LSD and Hall's 12,000 ton amphibious command ship, Ancon, to the 6 ton, platoon-sized LCVPs with a three-man crews. Ramsay did not give control of the merchant shipping to either Task Force commander but allowed the Home Commands to dictate the schedules of these ships. They sailed their supplies to the designated anchorage, unloaded cargo onto barges and ferries, and returned to Britain to embark another load, only answering to the Assault Force Commanders while anchored offshore.⁸

In the sequence of assault, Ramsay's Neptune Naval Plan called for the inconspicuous minesweepers to enter the Assault Area long before the battleships and transports arrived. "Minesweeping was the keystone of the arch in this operation," Kirk observed. Ramsay at first planned to sweep ten channels and then continue widening the first channels until they began to join. As the operation continued, Ramsay intended to have "five broad channels and eventually reduced to two." When the sweepers completed their work, each Task Force would use one large channel to reach the assault beaches.⁹

Ramsay divided the minesweeping for Overlord into four phases. First, he retained responsibility for cutting and marking channels through the enemy mine barrier that ran the length of the Channel. Second, once the minesweepers approached the French coast, Kirk was to assume command and ensure that they found and marked the clear areas for bombarding forces and for close inshore anchorages. Third, following the initial assaults, Ramsay would be responsible for widening the approach channels through the mine barrier and for clearing mines from neighboring areas so as to provide sea room for his defensive forces to operate freely. Last, Kirk was to protect his anchorages from mines laid after the assault. During the final two phases, all the minesweepers did not report back to either Ramsay or Kirk, but because these stages would occur simultaneously, Ramsay

decided to split the minesweepers between his headquarters and his two Task Force commanders.¹⁰

Kirk and Ramsay also had provided for identifying and marking the cleared lanes. To mark the channels, they attached additional vessels to lay "danbouys" along the cleared lanes, thus effectively adding a fifth vessel to the usual four comprising a minesweeper squadron. This placed an additional strain on the pool of minesweepers available to Ramsay, Kirk, and Vian. The lanes not only had to be cleared and marked, but also they had to be located in precisely the right areas so that the convoys could find their entrances and the channels led directly to the assault beaches. To guarantee that the minesweepers would sweep the correct areas, Ramsay directed Force J to supply three motor launches on the night of 31 May to lay ten radio buoys, which were "timed to transmit between the hours of 1400 and 2200 on six successive days, commencing on 4 June." After the minesweepers cleared the channels, ten motor launches stationed at the lanes northern limits would point out the transmitting buoys to the minesweepers and Assault Forces.¹¹

Once his convoys passed through the swept channels, Ramsay would exert little control over the Western Task Force. Although he originally intended for Kirk to act merely as an advisor, by the time Ramsay issued the final plans, the Western Task Force had become a nearly independent command. Ramsay and Vian, who had served

together before and were personal friends, much as he and Kirk had been throughout the war, corresponded freely, but Ramsay's communications with Kirk were limited. Kirk wrote his own detailed plan for the Western Task Force delineating shore bombardment, beach clearance, the landings, and the fire support, sometimes translating to American methods "the very extensive plans" prepared by Ramsay, but generally exercising complete independence. Although Kirk could not have acted completely on his own when planning these phases, Ramsay's messages to Kirk commonly offered suggestions rather than orders.¹²

Once Kirk's warships reached station, Kirk warned their captains, they might have to fire "without air spot" or "during darkness utilizing radar." He also directed them to avoid firing before the designated time unless fired upon by the Germans. He added that once the initial shore bombardment commenced, the battleships and cruisers could move in to "deliver neutralizing fire upon the beach defenses at close range." To engage the concrete casements, Kirk recommended that his ships use armor piercing projectiles. For open batteries, Kirk wanted his ships to use their high capacity rounds with point detonating fuses. To provide cover, up to the moment the landing craft beached, Kirk ordered supported fire "synchronized with the movement of the leading boat waves." Once the landing craft reached the beach, the bombardment was to shift inland or to

beach flanks. Following the initial bombardment, Kirk planned for his warships to continue shelling the beaches to give fire support to the assault troops. Kirk added that he wanted gunfire "continued on enemy batteries which threaten our beaches and sea areas until the batteries are silenced or captured."¹³

As his batteries shelled the beaches, Kirk planned for Naval Combat Demolition Units and two battalions of Army combat engineers to land with the first waves to clear lanes in the beach obstacles. Kirk placed the teams under his Gunnery and Training Officer, Captain Timothy Wellings. The teams trained together for "the removal of obstacles of the type and quantity expected to be found in the Assault Area, conducted on beaches whose characteristics were as similar as possible to those on the French coast." The Naval Combat Demolition Units consisted of one officer and five men carried in an LCVF together with the necessary explosive. They also carried the Navy's primitive wetsuit called the "Jack Brown" or Self Contained Diving Outfit. Ramsay's Planning Memoranda of 17 April listed thirty-one demolition units in Britain and said that they were divided between Force O and U. Kirk planned for these units and the Army engineers to clear sixteen lanes on both Utah and Omaha Beaches.¹⁴

As the demolition units cleared the beaches and the assault waves that accompanied them moved inland, the

following waves were to be following the lanes to the beaches and unloading their troops. Once empty, the landing craft could return to troop transport stationed offshore or sail to Britain to embark reinforcements. Kirk planned for two regiments of Assault Forces U and O to land on the first tide with part of Assault Force B and the remainder of Assault Force O on the following tide. On the third tide the last regiments of Assault Force O and B would land. With this schedule, all the embarked divisions were to land thirty-six hours after H-Hour.¹⁵

Kirk's orders instructed Force B to follow Hall's forces into Omaha Beach. Although he intended for Force B to reinforce Hall, Kirk's plan also informed Edgar to be prepared "to land in emergency assault on either Omaha or Utah Beaches." If he did not need to reinforce Utah Beach, Edgar was to report directly to Hall until Force B had landed. Upon his release by Hall, Edgar would then become Commander Transports, Western Naval Task Force and direct most of the build-up.¹⁶

Following the landing of the first seven divisions (five assault and two follow-up) which had embarked for D-day, the plan called for the landing craft to either shuttle between transport ships offshore or return to Britain for additional loads. Kirk and Ramsay planned for this to continue from D+3 to D+12. By that time, the initial build-up of twenty-six to thirty divisions was to be complete. Kirk added that

the continued build-up in France of three to five per month "cannot be planned for at present." Additional reinforcement depended on the rapid turnaround of landing craft between Normandy and British ports. To facilitate this movement, Ramsay had established the Turn-around Control (TURCO). TURCO organized the reloading of the landing ships in Britain while the Force Commanders directed the unloading.¹⁷

General Morgan's COSSAC staff had initiated planning for another method to land over an open beach in 1943. They proposed building two artificial harbors in Britain and towing them to Normandy soon after D-day. They planned to tow Mulberry A to Omaha Beach and emplace Mulberry B off the British Gold Beach. British engineers proposed several methods to provide sheltered water for the piers and floating roadways necessary to unload deep-draft shipping onto the Mulberries and one plan studied by the Combined Operations Headquarters in 1941, proposed using bottom-laid piping, pierced with holes to pump compressed air bubbles into the water. These bubbles, in turn, would break up the action of wavefronts. This scheme was abandoned as it required ships with powerful pumps to be stationed close in shore and if the Germans damaged or sank one of the ships, the harbors would collapse. Another proposal envisioned the use of air filled canvas bags, called "Li-Lo," but the Admiralty also dropped this suggestion because the bags

proved too fragile for the turbulent waters of the English Channel.¹⁸

After abandoning the "bubble harbors" concept, the Mulberry designers turned to the use of floating steel "bombardon" anchored outside the harbors and sunken concrete breakwaters, codenamed Phoenixes, closer inshore to shelter the anchorage. Additionally, the Allies planned to sink seventy obsolete merchant ships and warships, called "Corncobs," bow to stern off the five assault beaches. They would reinforce the two Mulberries and provide three breakwaters for landing craft off Utah, Sword, and Juno Beaches, codenamed Gooseberries. All five of the Gooseberries totaled 24,000 feet of breakwater. Inside the Mulberry's breakwaters LSTs and Liberty ships could unload at the floating pierheads, codenamed Whales, which rose and fell with the tide. Their cargos of ration, munitions, and vehicles could then be motored across a mile-long causeway supported by pontoons to the beach.¹⁹

Only Normandy's unusual coastline and tidal conditions made the artificial harbors possible. In the absence of Normandy's exceptional tidal range of twenty-four feet and beach gradient of 1 in 100, the use of the Phoenixes and Gooseberries would not have been possible. Without a gradually sloped beach, the Phoenixes would have had to have been so tall that building and towing them to Normandy would have presented an impossible task. Normandy's proximity to

Britain also provided the "short tow" necessary for the "movement across the English Channel of a deadweight of about 2,000,000 tons," within a reasonable amount of time.²⁰

Ramsay and Kirk worked with Brigadier General Sir Harold Wernher, who had been appointed Coordinator of Ministry and Service Facilities on Morgan's staff. Responsible for "ensuring that the Supreme Commander's requirements for the Mulberries were met," Wernher arranged for the blockships and supervised the production of the Phoenixes, bombardons, and Whales. The Combined Administrative Committee of the Combined Chiefs set down strict guidelines for Wernher's project and Ramsay and Kirk planned on the basis that the Mulberries had a minimum discharge through the harbors of 12,000 tons per day (5,000 tons in the American and 7,000 tons in the British harbor) in all weather. They were also assured that both harbors would work for about ninety days and that by D+14 the Mulberries could land 1,250 unwaterproofed vehicles daily (this final requirement hinged on the fact that unwaterproofed vehicles entered combat more quickly.)²¹

Morgan considered the "provision of two artificial ports" as "indispensable for the Overlord Operation," and the Combined Chiefs approved his outline plan on 15 August 1943. However, Admiral Hall, who commanded divisional assault forces in Sicily, Normandy, and eventually Okinawa, opposed the plan. After being shown the plans for the

Mulberries, Hall stated, "I'll make it work. But I can unload a thousand LSTs at a time over the open beaches." He questioned Cunningham as to "Why do you give me something that anybody who's ever seen the sea act upon 150-ton concrete blocks at Casablanca knows the first storm will destroy." Hall could not see "the use of building them just to have them destroyed and litter up the beaches."²²

The Naval Plan also called for the Royal Navy to lay underwater pipelines to supply the invasion forces with Petroleum, Oil, and Lubricant (POL). Ramsay also called for the installation of a ship-to-shore pipeline, codenamed Tombola, was to start on D+4 and continue D+25. Another plan to lay pipelines was codenamed Pluto and designed to run ten cross Channel underwater pipelines to the Normandy beaches. Hall did not see the necessity for Pluto, and called it "ridiculous" because Normandy lacked the necessary tanks to store the POL. He said it was much easier to pump POL out of tankers offshore as it was needed and Pluto was done "just because Mr. Churchill wanted them to do it."²³

Because Kirk commanded the Western Task Force solely to land Bradley's 1st Army in France and initiate the build-up, he began joint planning with Bradley immediately after he arrived in Britain. After Bradley's landing force doubled soon after the arrival of Eisenhower and Montgomery, Bradley assigned two veteran infantry divisions to lead the assault. Bradley planned to send a regiment of the 29th Division and

the 1st Division onto Omaha Beach under General Gerow. Collins' 4th Division was to assault Utah Beach. The plans called for each of these divisions to go through the Assault Training Center at Woolacombe in Britain. At Woolacombe, newly formed regiments underwent their first amphibious training and the veteran units sharpened their skills and become familiar with the new weapons and vehicles used in Overlord.²⁴

Kirk and Ramsay's naval plans also contained large sections concerning air bombardment, cover, and spotting by American and Royal Air Force squadrons. Because of the international nature of the invasion, Ramsay emphasized that it "must be possible to employ British or U.S. bombarding units, and spotting aircraft, in either British or U.S. sectors." To facilitate the easy shift of aircraft or warships to other beaches, Ramsay assigned a British Army Bombardment Liaison Officers (BLO) to each bombarding ship of both navies and attached him to the Task and Assault Force Commanders."²⁵

Kirk's Western Task Force also had three converted LSTs to use as Fighter Director Ships. The U.S. Navy had specially equipped these ships with additional communication and radar equipment to control multiple spotting aircraft from offshore. Ramsay stated in March that during the initial assault he required aircraft for spotting on twenty-four targets. Ramsay requested a different frequency

for each target. To use twenty-four frequencies in the Very High Frequency Band(VHF), Ramsay realized that it would "almost entirely occupy the disposable band, and some compromise appears necessary." Ramsay stated he would settle for ten frequencies. Unlike modern radios, this did not simply mean that the Fighter Director Ships could only use the ten frequencies assigned to them. Radios in the 1940's still needed specific crystals to operate at a frequency. Therefore, these ships were not only authorized to use only specific frequencies, they had no choice because of a limited supply of crystals aboard the ship.²⁶

Although he could not execute direct control over the aircraft, Kirk had an average of five fighter squadrons covering the American Assault Area at all times during daylight hours. He also had five more squadrons covering convoy routes. Because he had to go through the Army Air Force's representatives assigned to his staff, Kirk anticipated a delay of several hours before getting most air support. Because of this delay, Kirk warned "Task Force and Assault Force Flagships should request such support prior to 1800 on the day preceding the day support is required." Kirk did have some aircraft on "ground alert" and they could be over the objectives in a minimum of two hours after being requested. Finally, he also had aircraft on "air alert" which could arrive for spotting duty "in a matter of minutes."²⁷

These aircraft were formed into teams of two, with a "Spotter" and a "Weaver." The spotter observed the terrain and made the call for fire support while the weaver provided cover. Ramsay expected to allot two teams at a time to each Assault Force planning for each team to spot for two ships. Because of the limited range of the spotting aircraft, Kirk had to make plans for other methods of bombardment. He informed his ships that "Each spotting aircraft will be briefed by Tactical Air Force on two targets per sortie." He therefore authorized his ships "to carry out impromptu shoots if more profitable targets than those on which the pilot has been briefed present themselves."²⁸

Altogether, there were 171 fighter squadrons over the Normandy Beaches at some time. Eisenhower broke their assignments down as follows:

Beach cover	54
Shipping Cover	15
Direct Air support	36
Offensive Operations and Bomber Escort	33
Striking force	33

With these aircraft, Eisenhower planned to operate five fighter squadrons over both Kirk and Vian's Assault Areas. He also planned to have an additional six squadrons prepared to "support the beach cover if necessary."²⁹

The Overlord plans also contained what was called the "Transportation Plan" which Morgan originally developed as

COSSAC. Under this plan, fighters and bombers of the Tactical Air Force under Leigh-Mallory bombed bridges, rail yards, and roadways. This operation was intended to separate the German 15th Army from reinforcement coming from the south across the Loire River or from the east across the Seine River. The Allies wanted these air attacks to effectively isolate Normandy from the rest of France until the Allies had a substantial army ashore.³⁰

Even as the last stages of planning progressed, the Allied Army, Navy, and Air Forces commenced training for the invasion. As the training and build-up continued, Britain began to look more like an armed camp than the peaceful country it had been in the 1930's.

Chapter Seven

The key factor of an amphibious operation is training the men who conn the landing craft, assault the beaches, or fire shells into the enemy's defenses. Without sufficient training, units cannot properly execute their part of the overall plan and the operation might fail. Each unit commander in Overlord familiarized his men with their mission and the Force Commanders trained the smaller units and squadrons to work as a team in combined training operations. Altogether, the forces in Overlord conducted ten large training assaults against beaches in Britain. Each successive operation grew larger as D-day approached. Although Kirk put every effort into effectively training his men for the coming attack, many factors limited the effectiveness of the training operations. With such activity just fifty miles from enemy bases, the Task Force commanders also expected the Germans to attack their training exercise at any time.

Even before Kirk arrived in November 1943, King had established Wilkes as Commander XI Amphibious Force and ComLanCrabEu. Because Wilkes initially had only five LCT and ninety-five landing craft, he conducting little training before Kirk's arrival. After Kirk took command of TF122, the pace of American landing craft and personnel arrival into Britain rapidly increased. Kirk told Stark that the ships steaming to Britain from the United States were to

report to the 12th Fleet, and asked that Stark reassign them to TF122 as soon as possible so he could then attach them to their proper task forces and groups.¹

Although Stark was Kirk's administrative superior, Admiral King had given Kirk direct operational authority over all U.S. Navy forces involved with Overlord. Stark was to furnish TF122 with logistic support and to "use his existing organization to deliver materials to the elements of Task force 122; assist in the training of the logistic components of Task Force 122 insofar as Commander, Task Force 122 may desire; furnish such experienced personnel as are available to leaven the logistic components of Task Force 122; and provide for the communication needs of Task Force 122 through the medium of ComNavEu's communication system." Although considerably senior to Kirk, Stark was by now resigned to the situation, and unstintingly supported the expansion and training of TF122.²

Upon Kirk's arrival in England, Ramsay explained that he wanted TF122 "framed on generally similar lines to those laid down for British forces." He justified this on the grounds that, "as craft will have to work British and American beaches alternatively[,] it is most desirable that so far as is practicable a similar chain of command should be established in each sector." Kirk apparently had no objections to this arrangement.³

Soon after Kirk took command of TF122, Hall relieved

Wilkes and Hall not only took command of XI Amphibious Force, but also became Wilkes' immediate superior inasmuch as ComLanCrabEu was part of XI Amphibious Force. In practice, however, Wilkes remained largely independent, and Hall recalled that Wilkes, although under his command, "was authorized to deal directly with higher echelons in matters pertaining to maintenance, repair, and logistics services, including personnel." Kirk had also charged Wilkes with the "responsibility for the maintenance of all landing craft of the force in a state of maximum material readiness, and with the purely Naval aspects of their training."⁴

While Wilkes was preparing the landing craft and their crews, Hall conducted live fire training operations with the U.S. Army and Army Air Force. He established his headquarter in Plymouth, but most elements of the XI Amphibious Force operated out of Dartmouth. Dartmouth was chosen because the British had cleared the nearby Slapton Sands area of all civilians so that it could be used as a live-fire amphibious training center. Kirk directed Hall in his Operation Plan Number 1-43 of 11 December 1943 to: maintain maximum operation readiness by intensive training and upkeep; train Army personnel in amphibious warfare in accordance with agreements arrived at with the military units concerned; and defend the Amphibious Bases established in the United Kingdom. Hall's, like Kirk's, success in previous landing operations in North Africa,

Sicily, and Italy meant that he had earned the respect necessary to command both the Army and Navy units during the training operations. Stark confided to Kirk that he had heard of Army generals "dropping in to see Hall all the time, and he is straightening them out and apparently the liaison is perfect."⁵

Admiral Moon was the last principal flag officer of the Western Naval Task to arrive in Britain. Although Moon would hold a billet equivalent to Hall's during the invasion, Hall commanded Moon's forces during most of the training exercises because the latter's forces initially came under XI Amphibious Force and because Moon had never commanded an amphibious assault. Therefore, until Operation Tiger in late April 1944, Hall commanded all the training operation involving both Forces O and U.

Soldiers and landing craft crews only received "elementary training" in the United States before they embarked on their transports for Britain. Once overseas, inexperienced sailors had to become familiar with handling their landing craft, firing its weapons and the proper method of beaching the vessels. The soldiers had to become accustomed to the pitch and roll of a keelless vessel, learn how to disembark over a lowered bowramp, and become adept at climbing down a cargo net onto a very unstable landing craft.⁶

The first landings, Operations Duck, took place in

February 1944. Like the operations that followed in March, Parrot and Beaver, Operation Duck only exercised battalion and regimental sized landing teams. Not until Operation Tiger in late April did the Assault Force Commanders attempt a divisional training exercise. Tiger involved Moon's Force U and elements of Collins' VII Corps. Besides being the first division size training operation, Moon described Tiger as the "first major exercise in which the searched channels were purposely extended and complicated in order better to simulate operational confflions." Hall and Moon also ensured that "several 'buildups' were scheduled to follow the assault phase" to simulate the actual build-up schedule for D-day. Although Hall still commanded XI Amphibious Force, Kirk gave Moon complete control of Tiger and Hall only acted as an advisor.⁷

Not unexpectedly, many problems developed during Tiger. The first problem noticed by Moon resulted from his decision to delay H-hour sixty minutes. At 0620 the commander of the Green Assault Group reported to Moon that "some of his LCT's carrying important new Army weapons, were behind schedule." Unable to contact Collins, Moon ordered the one hour delay. This caused much confusion because some landing craft did not receive the information and landed as scheduled. This delay also caused the Air Force to cancel their scheduled air support. Ramsay wrote after observing the exercise, "It was a flop and putting it off was a fatal error." He

continued that "there was much to criticize, but the main thing was the lack of senior naval and army officers on the beach."⁸

Operation Fabius I followed Tiger. Hall's Force O and elements of General Gerow's V Corps also landed at Slapton with far less confusion than Moon experienced during Tiger. Following Fabius I, the British Force G, J, and S conducted Fabius II-IV and the follow-up Forces B and R landed during Fabius V. During all the training operation, Kirk and Vian expected a German attempt to disrupt the lightly defended assault convoys. Not until Operation Tiger, however, on the night of 27/28 April did the German Navy attack the landings.⁹

Before Tiger, Moon had warned his captains on 25 April that "attack by enemy aircraft, submarines, and E-boats may be expected enroute to and in exercise area." Hall also expected the Germans to attack soon and on 24 April, in a message concerning Kirk's Operation Plan 2-44, warned his units preparing for Tiger and Fabius I that an "actual attack by enemy aircraft, surface craft and submarines may be expected during the exercise." The Germans had not interfered with the smaller landing operations, but Kirk knew they could sail any number of their E-boats out of Cherbourg at any time and British Operational Intelligence had reported that at least seventeen E-boats operated out of Cherbourg at the beginning of April. Operational

Intelligence also reported that because pens were available at Cherbourg "aerial reconnaissance was of no assistance."¹⁰

Despite numerous warnings, two squadrons of E-boats successfully attacked LST convoy Tiger 4 (T4) at approximately 0220. Before the convoy commodore, Commander Bernard J. Skahill, knew the Germans had attacked, he had lost the LST 507 and the LST 531. He later reported that he thought the gunfire from the two sinking ships, because of their "position and absence of any indication to the contrary," came from a source on the "shore or totally unconnected with the convoy." Skahill even observed a burning vessel approximately five miles from his ship, but believed the ship was not an element of his convoy because "the burning vessel seemed so far away; no information messages were received; and the escort vessel maintained its station ahead of the column." Once Skahill became aware of the situation, he ordered his ships to disperse, but the crews of the lightly defended and awkward ships could do little to fend off further E-boat attacks. The Germans continued their attack, sinking the LST 491 and damaging the LST 289.¹¹

Throughout the attack, the British corvette Azalea was the only Allied escort present. Lieutenant H.A. Mettler, captain of the LST 289, reported "that at no time were we given any apparent support from our escort or any other source, even though thirty-three minutes elapsed between the

surface fire and the torpedo attack." Vice Admiral Leatham, the CinC Plymouth, had assigned the old World War I British destroyer Scimitar. in addition to the Azalea, to escort the convoy. The Scimitar did not sail with the convoy because of damage incurred during a collision with an LST. Leatham failed to detail a replacement or inform Moon of the Scimitar's absence inasmuch as he had not been informed of the accident by his port authority. The Scimitar's captain also failed to notify Moon or Skahill, supposing that the Plymouth port authorities had requested permission before ordering the Scimitar into port for repairs. Once he became aware of the situation, Leatham dispatched the British destroyer Saladin to reinforce the Azalea, but Moon reported that the Saladin only "arrived in time to rescue survivors but not assist in repelling attack."¹²

Although casualties are expected in such operation, the true tragedy of Operation Tiger was that the British knew the E-boats were in the area and no one informed either Skahill or the Azalea. Leatham reported to the Admiralty shortly after the attack that the Onglow, a British destroyer patrolling off Portland Bill roughly fifteen miles from the attack, had sighted an E-boat on a northerly course at 0011. Leatham also noted that his command knew at 0200 of three groups of E-boats cruising ten to twenty miles south-southwest of Portland Bill and searching to the northwest. From this data, Leatham should have been aware

that convoys sailing for Tiger were in danger. If he had done nothing else, he should have informed Moon that German warships were approaching his operating area. Moon could have either changed the convoy route or sailed any number of his fire support ships to meet the German attack. Leatham had made an agreement with Hall in January that he regarded the American admirals "in exactly the same light as any British flag officer in command of a British force operating with my command." More importantly, he added "Should I have any information of enemy attack by E-boat, submarine, or air, it will be passed to you to take such action as you may think fit."¹³

Even with such an agreement, information passed slowly from the Home Commands to the Americans relying on their screening. Once the vessels were at sea information ceased to flow between the convoys and their escorts because one did not have the radio frequencies the other was monitoring. Therefore, the convoys only communicated with the Assault Force Commander and the escorts received all their orders from the Home Commands. Kirk also criticized the British system of endowing their Home Commands with total responsibility for the screening of Moon's forces because that system not only hindered communication, but Kirk added that it resulted in only two escorts being allotted for screening of the convoy to seaward. Kirk later said that if the forces involved in the exercises had prepared themselves

or if Hall or Moon had stationed American ships to cover the landing craft the British would have either been "cross" or would have wanted to "take command of it."¹⁴

During operation Tiger the U.S. Army and Navy lost nearly 750 men aboard the three LSTs sunk by the Germans. That was a greater number of deaths than suffered at Utah Beach on D-day, but from the military viewpoint, the men could be replaced more easily than the LSTs. Because he already operated with few reserve LSTs, Kirk had to find replacements immediately. After being asked for additional LST, King informed Kirk through Stark that "the only way feasible for providing three replacement LSTs in time for operation is by obtaining them from the Mediterranean." After they realized the United States would not supply additional LST, the Admiralty informed Mountbatten, as CinC Mediterranean, that "the loss of three LST will have less effect on Mediterranean operations than on Overlord," and transferred them to Britain in time for Overlord.¹⁵

While the Navy searched for replacement LSTs, an even more serious problem faced the Overlord commanders. Aboard the lost ships had been several officers with extensive knowledge of the Overlord plan. Because of the secrecy necessary for Overlord, officers with a "need to know" had received an additional security clearance called "Top Secret, Bigot." No one could view or talk about the Overlord plans without the Bigot suffix on their security

clearance and those authorized were simply called "Bigots" or "Bigotted." Allied commanders feared that the E-boats might have rescued some of the "Bigots" and taken them back to Cherbourg for questioning. After the attack, divers searched the wreckage and sea floor, while soldiers combed the beaches trying to account for the bodies of all the officers that had possessed knowledge of landing time and locations. Finally all the bodies were recovered and Eisenhower assumed that Overlord had not been compromised.¹⁶

A greater knowledge of the E-boats and their tactics would have lessened Allied fears that the Germans had taken prisoners aboard the E-boats. Lieutenant Hans Schirren commanded S-145 of the 9th S-Flotilla operating from Cherbourg and attacked convoy T4 on 28 April. He later wrote that "our system to keep alive and avoid destroyers and escorts was to 'hit and run', travelling always at high speed." They neither had time to reload or stop to render assistance to survivors of any vessels they attacked, he added.¹⁷

Once he received a full report on Operation Tiger, Kirk sent a message on 4 May to Ramsay with two recommendations to deal with the E-boat threat. Kirk told Ramsay that he wanted to "bring the port of Cherbourg under heavy bombardment, both by the heaviest naval guns and by the heaviest aerial bombs," to destroy it as an "operational base for German E-boats and destroyer[s]." Kirk also

reported that CinC Portsmouth had only four destroyers and CinC Plymouth had eight. Therefore, Kirk added that he thought the Admiralty needed to reinforce Home Commands Plymouth and Portsmouth with more ships "capable of dealing with the E-boat menace."¹⁸

Kirk felt that his Task Force, particularly Moon's Force U because of its proximity to Cherbourg, was "particularly vulnerable to E-boat attack." He pointed out that he barely had enough warships in the Western Task Force to furnish the necessary gunfire support to the landing. Additionally, he wrote that to prepare for returning fire before H-Hour, "the gunfire support ships have to be phased forward in the cross-channel movement to such an extent that no destroyers are available as escorts for the later convoys." Finally, he notified Ramsay that once the bombardment started, he had no safety factor in the terms of men-of-war that could divert to strike against the E-boats.¹⁹

After reading Kirk's suggestions, Ramsay confided to his diary that Kirk had "quite lost his sense of proportion besides being rather offensively rude." From the letter condensed above, Ramsay wrote "My opinion of him decreases steadily," and he concluded that Kirk was "not a big enough man to hold the position he does." Not until 7 May did Kirk and Ramsay discuss his official request at meeting with both Hall and Moon present. Although Ramsay felt they had reached an agreement, he wrote that Kirk "had behaved with

pomp and stupidity." Already annoyed with Kirk, Ramsay became even more irritated the following Monday.²⁰

Before Ramsay gave Kirk an official reply, Eisenhower also received a copy of Kirk's proposal. Kirk had gone around Ramsay through Stark and the first Ramsay knew of this situation came on 8 May during his weekly Commanders meeting with Eisenhower. When Eisenhower questioned him about the E-boat problem, Ramsay admitted "that it was certainly a serious menace, but it would be a mistake to overestimate it." He added "it was impossible to ensure security but everything would be done to destroy E-boats prior to D-day," but he continued that he considered a naval bombardment "ineffective and risky."²¹

When Ramsay finally replied to Kirk's suggestion in writing, he listed a number of reasons why he deemed a naval bombardment unnecessary. Ramsay wrote that he considered Cherbourg too heavily defended and he thought the batteries might damage the ships already assigned to support Overlord. He also reminded Kirk that the Germans and British had mined the waters near Cherbourg and they required sweeping before major warships could approach the harbor. Finally, he stated that the bombardment must be continued for a long period of time to be effective and that might "jeopardize the security of the landing plans." To further his reasoning, Ramsay insultingly pointed out "that landing ships and craft in convoy are themselves armed, and by

making proper use of their weapons and keeping a good lookout should be capable of putting up a good defence."²²

Despite the personal dissension with his superior resulting from Kirk's proposal, he and his subordinates had to accept the situation and continue. They examined each of the training operations for progress and flaws in the planning. Kirk quickly realized that many of the landing and support craft assigned to the American beaches would not arrive in time for sufficient training. Kirk had already received reports of British dockyards slowly unloading LSTs returning from the Mediterranean Area. He wrote Ramsay that the "slowness of unloading LSTs retards necessary voyage repairs, and prevents their early use in exercises and training" and asked him to take it up "with the proper authorities." Hall also reported that "due to the late arrival of landing craft in the Theater, plus the necessity for alterations and repairs," he only had the time to train "between 60 and 70 percent of the landing craft which eventually took part in the assault under Force 'O'."²³

During training Hall also complained that it "was deemed most practicable [by the British] to keep the U.S. heavy fire support ships in the Clyde-Belfast area." Because of the distance between Northern Ireland and the beaches at Slapton Sands, Hall stated, "These ships were thus unable to participate in the force O full scale rehearsal for the operation." Even when Admiral Deyo had

the opportunity to conduct live fire exercises with his fire support group, he stated that the shortage of ammunition for American ships in Britain "precluded more than one actual firing practice with battleship expenditure limited for that practice to twenty rounds."²⁴

While American warships in Britain had experienced trouble training with the assault forces, many of the bombardment ships did not arrive until after most training had ended. As early as 1 January Kirk requested one division of destroyers from King and asked that they "arrive as soon as possible." He added that he needed them early enough "to receive one month of training for gunfire support" in Britain. He also wanted the destroyers to "provide protection of craft and troops in joint and naval training exercises" because Hall considered the escorts were then "inadequate." King generously responded to Kirk's request and eventually sent over thirty destroyers to TF122 for Overlord. However, most of these ships arrived in Britain in late April or early May. They did arrive the requested month before D-day, but Ramsay had scheduled most American training operations in March and April, with Fabius I from 3-6 May being the last major American operation thus precluding many of the warships' participation in assault exercises.²⁵

The destroyers were not the only American gunfire support ships to arrive too late for most of the training.

Captain Sabin wrote in his action report that "training for the first seven months consisted of familiarization of various other types of craft, communications, gunnery courses, navigation, and lectures on amphibious operations," because his support craft had not arrived. He added that the "vast majority" of his craft had only participated in one training exercise and that two of his LCT(R)s joined their assault forces "without [thier crews] ever having handled their craft except in passage" or "without ever having fired rockets except at the Assault Gunnery School."²⁶

To augment the gunfire support during training operation Kirk had to use ships supplied by the Royal Navy. The British cruiser Glasgow was able to participate in all the operations. Her captain, Captain C.P. Clark, wrote Deyo that "in the course of nearly three months training prior to D-day, this ship became so indoctrinated with the American procedure that we came to regard it as our own." Hall actually had the American Naval gunfire liaison officers meet with the gunners on the ships they would be working with and practice with them against actual targets on Slapton Sands and the Clyde. Because most gunnery training prior to World War II had concentrated on blue-water engagements, little shore bombardment training had been conducted. With the training received by British warships supporting American training, American warships would undoubtedly have provided more accurate fire support during

the actual invasion.²⁷

In addition to gunfire support ships and craft, Kirk had to train his men to launch "Dual-Drive" or DD tanks that the Army planned to provide the landing forces with immediate armored support. These craft were American M4 Sherman tanks with propellers geared into the drive-train and a canvas shell attached to the body for buoyancy. The British had developed these tanks and the American Army adopted the project. During training, landing craft crews had to develop disembarkation methods for the DD tanks with their flimsy canvas shells without sending the tanks and their crews to the bottom of the Channel. As training operation progressed, no landing craft fitted with necessary equipment to launch the DD tanks had arrived. Kirk eventually had to wire King in March to speed delivery of the landing craft. Because of the limited training with the DD tanks, Kirk found it necessary to promulgate a message about the tanks only a week before D-day, stating, "They are real tanks," and emphasizing their importance to the operation.²⁸

Although Force B did not carry out its training operation until Fabius V in mid-May with the British follow-up Force L, Kirk's task force finished most of its training in early May with Fabius I. During their training operations, Kirk forces had missed two key aspects received by the British. For one, all the American landings had been

carried out only under the best weather conditions. Whereas, the adverse weather during Fabius IV had given Force S much valuable training in rough seas. Additionally, American troops had not trained with any Air Force support. Although the Ninth Air Force had been scheduled to support Tiger, they did not arrive and it was not until May that Lieutenant General Lewis H. Brereton as Commander Ninth Air Force, announced he was ready to train with the troops.²⁹

During the training operations most of the ships and sailors of Kirk's Western Naval Task Force knew only that they were preparing to invade France sometime in the near future. After they had completed their training, each unit's primary concern shifted to the maintenance and repair of their equipment. Not until late May were orders opened and the troops and sailors in Britain began looking at maps of France for an area called Normandy.

Chapter Eight

Although Ramsay and Kirk issued plans to some of their subordinate commands in early May owing to the length of the distribution lists, they directed that the orders not be opened until May the 25th. Ramsay saw in early May that the "spate of recent alterations to the plans of Task and Force Commander will[,] if continued[,] produce a critical situation." To forestall any further requests for changes, Ramsay informed the Naval Expeditionary Force that he intended "to freeze the naval plan at 0900 Friday 12th May." After Kirk allowed the smaller units of the Western Task Force to review their orders, the individual commanders needed to become thoroughly familiar with their parts of the plan in less than ten days. Moreover, they were required to insert the "mass of amendments" which Ramsay and Kirk had already added to the original orders. As it was, the very size and complexity of the orders moved Kirk to authorize the officers with the smaller commands to read only those sections of the larger plans which directly concerned their units.¹

While the commanders of the landing craft units processed their orders, Admiral Wilkes prepared the ships for the invasion. Although Ramsay planned initially for only 90 percent of the LSTs and 85 percent of the LCTs and LCI(L)s to be operational for the landing, Kirk had finally convinced him to raise the American figures to 95 percent.

By 5 June, when the landing ships and craft began to put to sea, Ramsay admitted that Wilkes had achieved the "record overall figure of 99.3 percent for all types of US landing ships and landing craft." Because of Wilkes' efficiency, Kirk recorded "that of a total of 2,493 ships and craft in his force only twelve failed to sail on time." Three of these twelve resulted from a German raid on Portsmouth a few nights before the assault got underway.²

As Kirk's Task Force prepared to cross the Channel, British minelayers had already started to execute Plan Maple, which was seen as the counter to the E-boat threat that had caused such tension between Kirk and Ramsay. Operation Maple had actually started on 19 April and it involved three laying areas: the "Scallops" area off Le Havre; the "Greengage" area off Cherbourg; and the "Peach" area east of Cap d'Antifer, France. Ramsay ordered that fields be laid consisting "of both ground and a special type of moored mine." Intelligence returns could not immediately confirm the success of Maple, but by 6 June the Admiralty's OIC reported that the Germans had made considerable efforts to sweep these fields. This benefitted the assault in two ways. First, each enemy vessel involved in the sweeping operation could not lay mines in the landing areas; second, at least two E-boats struck these British mines before the fields became inactive on the 10th.³

Not only did the Allies hope to keep the actual

assaults a secret, but also they were trying to mislead the Germans into believing that the Normandy invasion was a grand diversion. Therefore, after his men received their orders and knew the destination of the landing, Kirk ensured that the Western Task Force followed stringent security procedures. "Upon the beginning of briefing for operation Overlord, or on signal," he instructed the ships under his command to "destroy all papers to keep them from the enemy; not keep any unnecessary chart or docs on board; collect all private papers; give everyone instructions on withholding information and not broadcasting on enemy wireless if taken prisoner; and ensure utmost security measures are enforced during briefings." After the captains briefed their crews, they were to "seal" their ships and allow no one to send personal telephone calls or cables. Thenceforth, Admiral Ramsay added that all "destroyers that operated near the beaches on D-day had to land their Overlord plans before sailing." On 25 May, as a final security measure, General Eisenhower issued a 10-day hold on all American mail within Britain, regardless of the sender's involvement with Overlord. After being briefed, the soldiers and sailors waited in their camps and onboard their ships until the early hours of 4 June, when the mass of men and supplies in Britain began to move to their landing craft in preparation for 5 June, D-day.⁴

Upon postponing the invasion from early May to June to

gain an additional month's production of LSTs and taking tidal and lunar conditions into account, the Allied commanders had selected 5 June for D-day. "The initial planning noted that the landing required four days of good weather to be successful," Hall observed, adding that good weather meant "light winds, calm or near calm seas, and freedom from fog." On the evening the 4th, after nearly all the landing craft had set sail for Normandy, the weather began to deteriorate. Captain Sabin recalled that "the early morning of June 4 found a clear night, slight but freshening wind and a mild sea increasing somewhat in swells," but noted that "both wind and seas were steadily increasing." Taking into consideration not only sea conditions, but also the cloud cover the airborne transports and bombers would encounter, Eisenhower informed his Expeditionary Force Commanders on 4 June that he decided to delay the invasion for twenty-four hours. Of the delay, Ramsay wrote his wife, "I shall hate the weather forever more for giving us this horrible time." The Commanders, in turn, relayed this down their chains-of-command and Kirk recalled that Ramsay told him over the "green line"--a secure, encrypted land circuit--ordering him to return to his Southhampton headquarters at once.⁵

After being briefed by Ramsay about the delay, Kirk returned to the Augusta to recall the Western Task Force. His orders already contained a detailed contingency

arrangement for the delay, so he simply had to transmit "POST MIKE ONE" to the various convoys to implement the order. Kirk knew that the Augusta did not operate enough radios to inform the entire Task Force in time, so he sent his duty communication officer, Lieutenant, j.g. Wynant Vanderpool, ashore with instructions to use the transmitters belonging to Plymouth Home Command. "It was a long time in their communication office and it was with some difficulty that I persuaded them that this particular message had to go out at once," Vanderpool wrote. Eventually, he convinced the British to broadcast the message and learned upon returning to the August that it had been sent. Whether by American or British oversight, a squadron of minesweepers already at sea failed to receive the transmission. Once he realized the minesweeper had not turned back and continued to sweep the approaches to Normandy, Kirk dispatched a destroyer to intercept the minesweepers with orders to return to port. The ships eventually came within ten miles of the Normandy coast before turning back, yet they remained unnoticed by the Germans.⁶

Not until 0400 on 5 June did Eisenhower decide to chance a break in the weather and set 6 June as D-day. Following the false start and Eisenhower's decision to proceed with the operation, the minesweepers once again sailed toward Normandy, clearing the ten planned channels. Although the operation's success hinged on the work of the

minesweepers, as late as 19 May, Stark had to arrange with Admiral Hewitt's command in the Mediterranean to borrow minesweeping gear. Kirk also asked Stark to tell the Navy Department's Bureau of Ships in Washington that "shallow-water mine sweep gear was urgently needed."

Eventually, Kirk received the additional sweepers and it was therefore ironic that, when his ships began sweeping across the Channel, they encountered surprisingly few mines.⁷

The sweepers effectively cleared the ten channels with only one casualty, the Osprey, which struck a mine while sweeping off the Cap d'Antifer near Le Havre. "It was remarkable that apparently the minesweepers were undetected till very late in the Approach Phase," Ramsay reported. Once the Germans realized the presence of the minesweepers, the German artillery failed to cause any damage to the vessels although they swept easily within the range of German defense batteries. Kirk attributed the lack of casualties among the minesweepers to poor fire direction by the Germans. The only difficulty Kirk did experience during the passage and minesweeping stages came about because the communicators had assigned the same frequency to the minesweepers of the Eastern and the Western Task Forces. "Some difficulty was experienced in obtaining reports on completion of sweeping and issuing of orders for subsequent sweeping," he noted, owing to the resulting congestion of radio traffic.⁸

While the minesweepers and landing craft approached the beaches, the U.S. and Royal navies initiated the largest towing operation in maritime history. Tugs from around the world had gathered in Britain to tow the 2.1 million tons of breakwaters, pierheads, and floating causeways needed for the two Mulberry harbors to the Normandy coast. As these tugs arrived in England, they were attached to Ramsay's Naval Expeditionary Force. Soon, Ramsay controlled a large fraction of the tugboat pool in a nation that was already suffering from a shortage of tow owing to the vast number of ships arriving continuously from the United States. On many occasions, the Royal Navy Home Commands used Ramsay's tugs to relieve their weary tugboat crews. Inasmuch as he already had tremendous responsibilities in other areas, Ramsay spent little time addressing this problem, eventually asking Stark for Captain Edward Moran, a reserve officer who headed the Moran Towing Company of New York, to be assigned to the Allied Naval Commander Expeditionary Force staff as "officer in charge of tug operations for Mulberry."⁹

Ramsay had also complained since January to the War Office about the lack of proper pumping gear to refloat the Phoenix Units. By sinking the Phoenixes, the British not only protected them from German bombers, but also saved the miles of mooring lines already allotted to the Bombardons for anchoring. They planned to have the Royal Engineers refloat the Phoenixes after D-day, but as Ramsay observed,

the Royal Engineers lacked the proper equipment to refloat the Phoenixes but refused to accept the situation. The salvage crews at Portsmouth, Nore and Dover had pointed out that the gear they had received so far was totally ineffective because it was incapable of dealing with the 28 foot lift required to drain the Phoenixes. Ramsay was "of the opinion that unless a salvage expert is called in and such salvage gear as may be available in the country is employed," it would not be possible to raise daily the eight Phoenix units called for in the plan. If no remedy was found, he added "D-day, and the whole build-up of the Mulberries will suffer."¹⁰

This came as no surprise to the Americans and Stark had already sent a member of his staff, Captain Edward Ellsberg, to Selsey Bill where the British had sank the Phoenixes. Ellsberg later wrote that the British had outfitted two Dutch schuifs (small coastal steamers) with generators and large centrifugal pumps originally intended to pump sewage but failed to realize that these devices did not suit the Phoenixes. Ellsberg soon figured out the British mistake and reported to Stark that the "sewage pumps" could not possibly provide enough suction to lift the water out of the Phoenixes. After Churchill refused to relieve the Royal Engineers at Selsey Bill, Stark eventually had to go to King George VI to correct the situation. At the King's request, Churchill revisited the issue. During Churchill's

inspection, Ellsberg noted, "not one question had been asked of anybody on the beach about the matter in dispute."

However, as a result of this intervention, Churchill ordered the Royal Navy salvage to refloat the Phoenixes and removed the Royal Engineers.¹¹

While the Phoenixes were being refloated, and Moran's tugs began the tow across the Channel, Kirk's Western Task Force approached Normandy. Because Ramsay had staged Kirk's convoys from Portland to Falmouth rather than in the central area which the British occupied, Kirk reported that "U.S. ships and craft proceeded by substantially longer routes to the Assault Area," thus requiring many of the landing craft to be at sea as early as H-39 hours. Moreover, using the large number of small ports and assembly areas assigned to his task force "resulted in a rather complex system of sorties and rendezvous." Because of these handicaps and because the convoys could make only five knots, Kirk commended the convoy and section commanders for carrying out their rendezvous even with the 24-hour delay.¹²

Although the convoys navigated the Channel and reached their destination on time, the LCVPs and LCMs discharged from the larger ships were not so successful as they approached the beaches. These craft were manned by inexperienced crews and operated only the most primitive navigational equipment. Indeed, the landing craft depended mostly on visual aids to maintain course and station. "If

you were in a landing craft, with a freeboard of six or seven feet height of eye, looking toward the shore, the coast of France, from ten miles away, you don't see it," Kirk pointed out. The landing craft approaching Omaha Beach had little difficulty because of the prominent cliffs behind the beach, but Moon's landing craft had few landmarks behind Utah Beach and eventually landed nearly 1,500 yards south of their intended beaches.¹³

During the passage, the Royal Navy patrolled from Norway to the Bay of Biscay. To the north, Cunningham maintained the British battleship Duke of York and the French battleship Richelieu on Scapa Flow to intercept any German capital ships that might have tried to put to sea. To the south Ramsay arranged for four antisubmarine support groups operating out of Plymouth and "five more in conjunction with escort aircraft carriers . . . under the orders of CinC, Western Approaches" to guard against enemy counterattacks.¹⁴

Although the North Atlantic shipping lanes were clear of submarines since early May--when Doenitz recalled most of his U-boats to their pens in the Bay of Biscay ports--nearly 200 submarines based in France waited for the invasion. Twenty-five of these vessels displaced less than 200 tons, making them ideal for operations in the shallow waters in the Bay of the Seine. Prior to May, Doenitz had deployed his forces against the Atlantic trade lanes, but after his

recall orders the Home Commands soon noticed that the German U-boat were threatening the English Channel. On 20 May, Vice Admiral Leatham, Commander Plymouth Home Command, reported the first sighting of a submarine in the Channel just north of the Brittany Peninsula. Following Leatham's report, the Admiralty redirected many of their U-boat patrols into the Channel in preparation for the coming invasion.¹⁵

Although E-boats and U-boats represented the greatest naval threat to the invasion convoys, the Germans also operated a number of their effective 1,500 ton Narvik-class destroyers from French ports. To meet this threat, Ramsay reported, "as early as December 1943 the forces under CinC Plymouth were reinforced by four cruisers and eight fleet destroyers." The Admiralty had reinforced these commands to destroy enemy surface forces in the Channel and the Bay Area and to protect the forces taking part in amphibious exercises in English waters. As a result, Leatham's forces destroyed two German destroyers by the end of April. He continued patrolling during the passage to and assault on Normandy, and on D+3 Allied destroyers sank the last two German destroyers in the landing area; according to Ramsay, "the threat of enemy destroyer action was thereby virtually removed."¹⁶

While maintaining the distant cover on the flanks and at the entrances to the Channel, the Home Commands also

screened the Assault Area. Short of destroyers, the Royal Navy generally made up for this deficiency by deploying destroyer escorts, corvettes, and motor torpedo boats. When the Admiralty suggested that Kirk turn over control of the American destroyers in his Control Force for this work, Kirk strongly opposed the arrangement. "Operational control of U.S. Naval Forces by Home Commands has been found, upon close examination, to involve many complications as to operational methods, signal systems, codes and ciphers, and so forth," Kirk told Ramsay, worried that once he gave his destroyers to the British, he had little chance of the ships returning to his command for some time.¹⁷

Because Kirk refused to transfer control of the U.S. Navy destroyers and bombardment ships to the Home Commands, many of his convoy commanders not only controlled their landing craft, but also positioned their escorts. Under the British system, the escorts remained under the Home Commands and the convoy commanders had little say as to where they deployed. However, one of the American commanders, Captain Sabin, directed a force consisting of landing craft, fire support craft and American destroyers and found that this made it easier to prepare orders for each form of German attack. "In case of surface contact, except for destroyers or larger in any Section, escorts were not to concentrate," he ordered. He intended to allow only the escorts defending the threatened section to beat off an attack so that the

rest of his escort might remain on station to meet other threats.¹⁸

Sabin found it necessary to retain the other sections with the convoy owing to the extreme length of this formation; "With a convoy of about twelve miles in length, I could not afford to leave any part without protection," Sabin wrote. As for the final movement toward the Assault Areas, the captain reported that he was extremely worried about the length of his convoy and the general lack of escort. "If we persist in these tremendous convoys of great length, consisting of cumbersome, lumbering, unmaneuverable, slow landing craft . . . inadequately protected," he observed, "we are not going to be lucky every time."¹⁹

In spite of Captain Sabin's fears, all of the assault forces arrived off the Normandy beaches without encountering any German interference. Kirk's large transports, battleships, and cruisers anchored 20,000 yards offshore in the early hours of 6 June. Once on station, the transports disembarked their landing craft and unloaded their soldiers in preparation for the 2-hour transit to the invasion beaches. While only ten miles off the French coast, these ships dropped anchor--a very noisy operation--lowered landed craft, and loaded the craft, but the Germans did not react. Nonetheless, "as early as 2200 on the night of 5th June Arromanches and Jobourg both reported enemy shipping in the Channel," OIC reported, but the Cherbourg operations room

seemed inclined to discredit these reports as it had twice issued false invasion alarms as recently as 17 and 24 May. Even when Cherbourg itself picked up main units of the Overlord armada northeast of Cap de La Hague, France, they still refused "to attach any importance to the fact."²⁰

German outposts continually sent reports of approaching ships to the Commander Naval Group West, Admiral Krancke. At 0015, for instance, Arromanches reported shipping only seventeen kilometers from the coast, but Krancke decided the "contact . . . was not definite enough to put coastal batteries into operation." Indeed, he broadcast no general promulgation of the invasion until 0130 on the 6th. Krancke deserved a good deal of credit for Allied success during the crossing because he thought the weather too foul and the tides "not right" for an invasion and so continued to ignore reports from his radar stations until it was too late.²¹

Eisenhower's decision to launch the invasion under such adverse conditions caused some anxiety among his staff at Widewings in Britain. Following the invasion, however, Ramsay concluded that "although the unfavorable weather caused difficulties and damage to craft off the beaches later, the advantages gained by surprise were so striking that your decision to go on despite the weather was amply justified." Because of the weather and the tides, OIC reports the Germans transmitted the code word 'Koerbchen' on 5 June for the coast between Boulogne and Zeebrugge. OIC

and the Germans knew that this indicated a cancellation of the second degree of readiness, and that, more precisely, it meant a "reduction in the state of anticipation."²²

Even under reduced readiness, the Germans still manned the radar stations they had thickly emplaced along the Normandy coast. Krancke ignored their early radar reports not only because these stations were manned by inferior personnel, but also because the Allies were providing him with more indications that the invasion was taking place elsewhere. In the simplest of the decoy operations, Ramsay's communications personnel busily simulated "large scale exercises implying the presence of assault forces in harbour while they were actually at sea on D-1." Beyond this simple effort the decoy operations became much more complex.²³

The Americans and British conducted three diversionary operations conducted simultaneously to Overlord. First, Home Command Dover carried out Operation Glimmer on a ten-mile front using six British motor launches off the beaches in the Pas de Calais. Second, Dover directed Operation Taxable near the Cap d'Antifer with eight British vessels. Finally, Moon's Force U used four motor launches furnished by Home Command Plymouth to occupy the attention of the Cherbourg radar stations, an operation Ramsay codenamed Bigdrum. Ramsay reported that "The threat was maintained by Radio Counter Measures (RCM), the use of smoke,

and sonic warfare."²⁴

Radio discipline and the effective use of decoy operations, and the German's confidence that the weather prohibited an assault effectively allowed the Allied convoys to approach the French coast and begin discharging their assault forces undisturbed. "The realization that once again almost complete tactical surprise had been achieved slowly dawned," as his forces arrived unscathed, Ramsay admitted. Although the Germans eventually realized the Allies were assaulting their position and finally opened fire with coastal batteries, Kirk answered each round with salvos from his fire support ships even as the landing craft approached the beaches.²⁵

Chapter Nine

Kirk recalled that watching his carefully prepared assault forces approach the beach left him feeling somewhat "let-down." He "couldn't say it was disappointment, that would be wrong," but it appeared to him that the Germans might not oppose the landings. Some of the emplaced heavy guns identified by intelligence proved not to exist and much of the German coastal artillery could fire only on the beaches: thus, the landing craft approached the beaches unmolested by the Germans. The greatest problem many of the vessels faced came from the weather. Their small, keelless craft had very poor seakeeping qualities, and the Army's assumption that they had no displacement limits also compounded their problems. With 20-knot winds and what Ramsay called "the appearance of 'Porpoises' with ammunition," many LCVs and a few LCTs foundered, their heavily laden soldiers never reaching the beaches.'

A few alert German gun crews did attempt to shell their approach lanes and assembly areas soon after the landing craft started toward the beaches, but at that point, Kirk's orders provided that the gunfire support ships were to commence their counter-battery and beach drenching fire by that time. Kirk had the 12-inch and 14-inch shells of his battleships to breach the seawall and "lessen the resistance expected in the immediate area." Prior to the naval bombardment, the landing armada heard thousands of heavy and

medium bombers fly overhead. Off Moon's beaches, craft close inshore witnessed Army Air Force B-26 and B-25 medium bombers turn the German defenses in the Utah beach area into piles of rubble. While the medium bombers dropped their loads onto Utah Beach, Spaatz's heavy B-24 and B-17 strategic bombers were assigned to bomb the Omaha area starting at H-30 minutes.²

Off Omaha Beach, Hall awaited the appearance of the bombers and anticipated the ensuing destruction of the defenses by the 8th Strategic Air Force. It did not happen. Kirk accredited the "low ceiling" over the beaches for the bombers' failure to deliver their bombs on target, whereas Hall simply stated in his report that "the air bombardment for delivery on the Omaha Beaches . . . did not materialize for reasons unknown." General Spaatz later claimed that, to ensure they did not unintentionally bomb friendly forces, they had delayed their bomb releases for several seconds because they had to bomb by instruments. That resulted in the 30,000 bombs intended for Omaha Beach to land among French pastures up to three miles inland.³

Although the Air Force failed to neutralize the German defenses on the beaches, they carried out the rest of the missions supporting Overlord with great success. The Overlord plans also called for bombers "to disrupt rail and highway transportation so that the enemy would find it as difficult as possible to move troops and supplies into

threatened areas." As part of this mission, the Army's Special Air Intelligence Summary reported shortly after the invasion that Allied aircraft had begun destroying German rail operations "several weeks before D-day with a total of eighty-two rail yards and centers in Northern France, the Low countries and Germany." A combination of 8th Air Force, RAF Bomber Command and Leigh-Mallory's Allied Expeditionary Air Force squadrons worked together to destroy the French transportation system. They performed so well, that by D-day, all nine bridges over the Seine between the suburbs of Paris and the sea were destroyed or heavily damaged.⁴

Soon after the bombers had passed overhead, the U.S. Navy resumed its bombardment of the beaches with fire from its battleships, cruiser, and destroyers. Although Kirk would have hoped for each hit to destroy the emplacement, this rarely occurred. Even with the weight of explosives dropped on the beaches by bombers and naval guns, Ramsay reported "that many of the beach defenses were active until overcome by the infantry." Captain J. W. Josselyn, of the British cruiser Hawkins reported this often occurred because "A salvo which straddles the target is often reported as a hit." Even a "straddled" round produced casualties in the gun crew, but within a few hours these guns could again commence firing on landing craft and the beachheads.⁵

The bombers and warships initially fired at prearranged targets designated by intelligence as probable locations for

gun emplacements. The Battery Bombardment Plan passed down from Kirk to Hall and Moon, contained eighteen targets and showed the presumed ranges of the guns and their arcs of fire. While the prearranged fire continued and the landing craft continued to approach the beaches, Sabin's LCT(R)s prepared to launch their barrage. When these craft launched their rockets, the ships themselves appeared as if they had been hit by enemy fire. With their decks ablaze from the rocket thrusts, these craft launched over 1,000 rockets each toward the beaches. Off Utah Beach, the LCT(R)s' rockets landed among the German defenses and early waves reported enemy troops walking "unarmed toward the water to meet our troops as if to hasten their death or surrender." Other officers arriving in the first waves reported back to Moon that the bombers, battleships, and LCT(R)s had been so effective "that there at first appeared to be little left except sand, broken concrete and great clouds of dust."⁶

The LCT(R)s assigned to Hall's Force proved considerably less accurate. Being in the more open water near the center of Bay de la Seine, Hall's rocket craft worked in much rougher seas. Without sights or aiming mechanisms, the inexperienced LCT(R) crews only had dead reckoning and luck to use for fire control. Most of the rockets fired at Omaha Beach either landed offshore or far inland and did little harm to German defenses. Therefore, the landing craft in Force O approached a beach that had

only received fire from Hall's warships. Deyo later reported that the Navy had never before attempted "to silence with naval gunfire so extensive and elaborate a system of coast defenses as found here." Unfortunately for the men of Force O, the Germans proved that Naval gunfire alone could not solely provide effective preinvasion bombardment.⁷

On D-day the invasion went very smoothly on Utah Beach. Because of navigational error during their approach to the beaches, Moon landing craft dropped the 4th Division a thousand yards south of the intended landing area. Since the medium bombers had attacked the entire beach and the LCT(R)s suffered from the same navigational error the bombardment still proved effective and most of the Germans defenders had either been killed or were too stunned by the bombardment to man their weapons effectively. The Army quickly moved inland and joined with the airborne division that had landed before daylight. By the end of D-day, Force U had effectively secured the Utah Beachhead nearly to the limits called for in the plans. Offshore, Moons naval forces suffered casualties from minefields that both Moon and Kirk had expected but could do nothing to counter.

Offshore, Moon originally reported two 6 or 8-inch shells hit the destroyer Corry at approximately 0710 from shore batteries near her fire support area off the Isle of St. Marcouf. Further investigation proved that the Corry

hit a mine missed by the sweepers. Moon also reported losing LCT 597 and LCT 362 to mines about 3,000 yards offshore. Moon commented in an interview with correspondents on 6 June, "The Mine Sweeping plan as far as my Force was concerned was a difficult one, as my area had an offshore shoal which in all probability contained mines." Kirk and Moon's plans made every precaution to properly sweep the fire support and transport areas before the landing, but they soon realized the Germans were using mines which British intelligence had assured them would not be present off Normandy.⁸

Following the loss of the Corry, Moon immediately assigned an additional sweep of the area, but the vessels did not find more mines until 0937 on D+1 when a mine destroyed the sweeper Tide. On the 7th, Ramsay noted "the first ground mines were found in the Western area on the Cardonnet Shoals," crediting these mines with sinking the Tide. The OIC reported that the German Navy had not allowed the German Air Force to deploy the bottom laid influence mines until after the invasion owing to fear that the Allies would copy them and plant them in Germany's Baltic training areas. Evidence soon revealed that intelligence had failed in this area.⁹

On the night of D+1, the German Air Force finally appeared over the invasion area, dropping additional mines in the transport and fire support areas. According to

Ramsay, Allied fighters maintained complete security during the day but the "air defense measures were unsuccessful in countering the enemy's night minelaying raids." Although Allied ships saw the location of most of the mines dropped by the Germans, a few escaped detection and inflicted casualties among ships transporting troops and supplies for the expansion of the Utah Beachhead. This further complicated the duties of the minesweepers and they had to resweep the Bay of the Seine continuously.¹⁰

Germany's use of "counting devices" on their mines also accounted for losses in swept areas. Researchers assigned by the Office of Naval History to investigate mine losses off Utah Beach, theorized that with the density of ships present "it is hardly probable that several other craft did not pass within firing range of at least one mine," after the loss of the Corry. They reported it was "possible that a mine could be fired by some craft at low tide when she might not actuate the mechanism on high water." This theory could not account for ships lost during the high tides. They also reported it was also improbable that the Germans could have fitted period delay mechanisms to anti-invasion mines because most of the mines went off between 7 and 8 June when the Germans least expected the invasion. This left the German use of a device that activated the mine after a designated number of contacts as the only explanation.¹¹

The destroyers Glennon and Meredith and the destroyer escort Rich were Moon's next mine casualties on D+2. While they sank no other warships, mines damaged and sank many more landing craft and transports. Moon's War Diary stated early in the invasion that while the Navy had suffered relatively few casualties, they were "in excess of those of the 7th Corps to date." By mid-June, Kirk's Task Force had swept 129 influence ground mines and only 78 moored mines. They had also suffered 27 casualties from German mines. Two-thirds of Overlord's mine casualties occurred in Moon's Assault Area off Utah Beach.¹²

While Hall's naval forces did not suffer many casualties offshore, the Germans nearly repelled his landing craft and assault forces. The men of the 1st Infantry faced stiffer resistance on Omaha than the 4th found on Utah for three reasons: the preinvasion aerial and surface bombardment had not been as effective; the DD tanks failed to reach the beaches on their own power; and the 352 German Division defended the bluffs overlooking Omaha Beach. As a result of the heavy bombers' and LCT(R)s' failures, Omaha Beach only received .02 pounds per square yard of explosive during the bombardment. Utah Beach received nearly .25 pounds per square yard that proved to be sufficient to render its defenders incapable of manning their positions.¹³

Because the bombardment failed to neutralize the defenders, the first waves faced withering fire from the

cliffs backing Omaha Beach. Naval Demolition Units and Army Engineers followed directly behind the first wave to clear lanes in the obstacle for following waves. Hall reported the first detail noted by the clearance teams was that "the obstacles actually encountered were much more numerous than Intelligence reports had indicated." To add to the clearance problem Ramsay also reported that "the wind was onshore and had borne the tide up the beaches as much as a half an hour ahead of schedule." Hall reported "Only five gaps were cleared all the way into the beach and three part way in, instead of the sixteen planned." Most of these were inadequately marked and resulted in only one lane leading onto the beach "Easy Red" being used for a considerable period of time.¹⁴

The failure of the Dual Drive tanks also placed the success of Hall's assault in question. The Army had planned to use the tanks to provide immediate armored support for the assault and intended for them to arrive five minutes before the first wave of infantry. As the LCT carrying the tanks approached the beaches, the Army and Navy officers on the right flank of Hall's force chose to accompany the infantry to the beach and not risk disembarking the DD tanks into the rough seas. In Hall's center and on his left flank the Senior Tank Officers and Senior Naval Officers of LCT chose to launch their tanks at the assigned distance of 6,000 yards. Of the thirty-two tanks that left the LCTs,

Hall reported "only two or three made it to shore."¹⁵

While few of the successive waves arrived intact because of beach obstacle and no support from the DD tanks, the men of the 1st Infantry had to face the German 352 Infantry Division. The British and Canadians to the east, and Force U to the west faced static divisions composed of foreign conscripts and inferior German soldiers, but a German field division defended Omaha Beach. This division not only included an additional regiment, but had also operated more machine guns and 80mm mortars. These troops had only recently moved into the Normandy area for training operations, but British Intelligence and Air Force reconnaissance failed to recognize the departure of the static division and the arrival of the 352nd. As each boatload of troops arrived, the Germans turned their machine guns and mortars on the American soldiers before they could cross the beach. As a result, what was left of most units huddled behind the sea wall or found some little cover on the open beaches behind the landing obstacles. Once they destroyed the effectiveness of an assault wave, the Germans moved their fire to the next group of landing craft approaching the beach. Because the situation was deteriorating, General Gerow asked Hall to deploy the rest of the assault force and Hall reported that "all the Landing Force embarked in Force O were committed by H+4 hours."¹⁶

Although he ordered the landing craft to approach the

beaches, Hall reported that most of the craft "proceeding shoreward were stopped between the seaward row of obstacles and the line of departure." Unable to maintain formation in the rough waters, the landing craft began to mill around and "all semblance of wave organization was lost." To achieve some kind of order, Hall sent the Deputy Assault Group Commanders close inshore to pull the landing craft back to a safer distance in order to reform their waves.¹⁷

While waves formed offshore, the situation worsened on the beach. Hall reported that the Germans had knocked out most of the tanks that had reached the shore or the tanks became "caught in the obstacles and flooded by the rising tide." As for the men, he wrote, "the personnel, both the assault troops and the Shore Party, were pinned down on the beaches just above high water by enemy fire." The assault force had experienced such difficulty that the Army Operational Research Group (AORG) later compared Omaha to the conditions that existed in Dieppe in the raid of 19 August 1944. They reported "in both cases troops on the beach were enfiladed by fire from strong natural positions." They also attributed the high casualties in both landings to the availability of few tanks "to support the infantry in the early stages of the assault."¹⁸

To counter the German batteries, shore fire control parties had accompanied the first waves to call naval gunfire onto enemy positions. Like the demolition units and

DD tanks, they too suffered serious casualties and proved unable to set up their equipment to contact their ships. At this point, Hall chose to send destroyers close inshore to try to spot German emplacements visually. He sent the U.S. Navy destroyers Carmick, Dovle, McCook, Thompson, Frankford, Harding, Emmons, and Baldwin and the three British Hunts, Melbreak, Talybont, and Tatatside. Although the British destroyers proved helpful, their inferior armament of only six 4-inch guns and limited fire control capabilities did not compare to the 5 and 6-inch batteries of the American ships. Hall wrote that because the ships lacked complete knowledge of their troops positions, "they closed in some cases to within 800 yards of the beach." From this range, the destroyers could see the impact of tank and infantry fire into the cliffs near German positions. Upon recognizing a trouble spot, the destroyers' batteries took the position under rapid fire and silenced the German guns. Hall's heavier ships joined in the fire but for the most part they fired at targets designated by air spotting or shore parties. As for the destroyers, Hall reported, "It is certain that they destroyed many enemy positions and it is probable that without their assistance the casualties on the beach would have been considerably higher." Lieutenant George Elsey, a naval historian present off Omaha, later reported radio messages such as: 1046-"Destroyer shelling Les Moulins. Things look better"; 1140-"Troops advancing

up west slope exit Easy One. Thanks due destroyer"; and 1150-"Troops moving up slope Fox Green and Fox Red. I join in thanking God for our Navy." Elsey also reported that Colonel S. B. Mason, Chief of Staff for the 1st Division, wrote Hall a month later, "that without that gunfire we positively could not have crossed the beaches."¹⁹

While this group of destroyers aided the assault divisions on Omaha Beach, another group of destroyers saved the Rangers assaulting Point du Hoe. Intelligence had reported the presence of six 155mm casemented guns on Point du Hoe. These guns could fire on the entire assembly for Omaha Beach and, to meet this threat, the battleship Texas fired some 250 rounds of 14-inch shell into the area. Additionally, the Army sent the 2nd Ranger Battalion to ensure the destruction of the emplacement. Once the Rangers reached the top of the bluffs making up Point du Hoe, they found that the Germans had moved the guns. After a hasty reconnaissance, they located the new positions and informed the Texas, which quickly knocked the guns out of action. Trapped nearly four miles from the main assault that was near failure itself, Hall wrote, they "found themselves in a very precarious position." To maintain their small beachhead until reinforcement could arrive, Hall assigned the American destroyer Satterlee to provide fire support. With her help, the Rangers repulsed numerous German attacks with units far outnumbering the Americans.²⁰

The radio reports recorded by Elsey were the first encouraging bits of news Hall had received. Soon after, however, he also heard reports of German defenders leaving their post and surrendering to American troops. Shortly after that he finally received news of troops advancing up the slope toward the beach exits. By 1340, nearly eight hours after the touchdown of the first waves, Hall reported he received word that two of his three beaches were "clear of opposition." Until this time, General Bradley and Hall's superiors had questioned the eventual success of the assault on Omaha Beach. Because of the stiff resistance encountered, by the night of 6 June Ramsay feared "that U.S. forces from O must be landed through J Sector, but determined fighting eventually avoided this." Stark also reported to King that Bradley also feared failure at Omaha and had obtained authority to "move some U.S. Army supplies through adjacent British beach entries."²¹

Despite Bradley and Ramsay's fears, Commodore Edgars' Force B managed to begin landing across Omaha Beach by 1630 on D-day. Upon receiving reinforcements from the 29th Division, the remnants of the 4th proceeded to strengthen their shallow beachhead in anticipation of a German counterattack. As D-day ended, Omaha beachhead only reached a little over a mile into France. By the time Ramsay reached the transport area offshore on D+1 the Army had managed to push inland perhaps a mile and wreckage still

littered the beaches. He wrote his wife, "Ships were bombarding, some well inland and some close too and there was a certain amount of gun and mortar fire on the beaches." Aboard the Ancon Ramsay received reports from Kirk, Hall, and Bradley. He wrote their story "wasn't a very cheerful one but they were not in anyway down hearted," and that they appeared confident they could make up the delays. Not entirely trusting his American subordinate, he added, "I wasn't too confident myself that they were taking all the necessary steps and could only hope that they would pull through somehow." After briefing Ramsay in private about the tremendous losses on Omaha, Kirk later reminisced that Ramsay had given the only shot of whiskey he had until his return to Britain on 4 July.²²

While Kirk's landing forces battled ashore, he awaited the German Navy's response to the invasion. Intelligence had reported that seven armored TLCs awaited his invasion forces at Port en Bessin and St. Vaast. Before the invasion these craft had made abortive attempts to reach Cherbourg but had to turn back on each occasion due to the weather. Because of the trouble the craft had experienced in that transit, they had been informed on 31 May "they could undertake no operation for the next few days owing to an unfavourable high water situation." This placed the crews of the craft off "immediate notice" and many of them used the relaxation in readiness to take liberty. ²³

The E-boats stationed in Cherbourg that had attacked Tiger and troubled Kirk during planning failed to appear off the American beaches on D-day. OIC reported that fifteen boats departed Cherbourg at 0430, but were "probably lured from the main objective by Operation Bigdrum." To the east, four E-boats out of Le Havre sank the Norwegian destroyer Svenner off Vian's beaches. When reporting the E-boat attack on his eastern flank, Ramsay stated, "The enemy were indistinctly seen against the land, and were almost immediately obscured by prearranged smoke screen laid by our own aircraft." Of the four E-boats that attacked, the British battleship Warspite sank one E-boat with a 15-inch shell. Despite their limited success on D-day, Ramsay informed Kirk that intelligence reported that the Germans were "fleeting as many E-boats as possible along the coast nearer to the Assault Area."²⁴

Apart from mine damage, the German navy inflicted few casualties on the assault forces. E-boats managed to break out of Cherbourg and Le Havre on isolated occasions, sinking two ammunition coasters on one occasion and two LSTs on another. Aircraft sighted seven U-boats coming out of Brest and two more from St. Nazaire, but two escort carriers supported by destroyers and land based aircraft did not allow any submarines to enter the Assault Area. The Germans also attempted to deploy a force of six destroyers to intercept the convoys of supplies moving from Britain to

France. Destroyers patrolling the convoy lanes continued to engage these destroyers and successfully kept them from the Assault Areas. Kirk later reported that after a few German attempts to penetrate to the beaches, "the Germans left the screen severely alone."²⁵

Although the Army continued to require fire support as it struggled inland to enlarge their beachhead on Omaha Beach, the Navy had begun the Build-Up phase even before the first waves hit the beaches. Immediately behind the assault forces LSTs and merchant transport waited for the Army to secure the beachheads so they could immediately start unloading. Behind these ships, the waves of tugs pulling the components of the Gooseberries and Mulberries had already started for the French coast. To control the movement of supplies across the beaches, Kirk had assigned Naval Officers in Charge (NOIC) for Omaha and Utah Beaches. After Moon gave Commander James E. Arnold responsibility for Utah Beach, Arnold had little information concerning his duties and visited the British NOIC for Gold Beach to find out what the British had planned. Upon his finding the British NOIC, the Royal Navy officer admitted little knowledge of the new system and stated, "Y'see, we don't know a damned thing about this NOIC setup. New and all that sort of thing." During training operation Arnold and his counterpart on Omaha Beach, Captain C. Camp, had to develop their own unloading procedures. Arnold later wrote that he

considered his duties as NOIC to be: the command of a body of men called the Far Shore Group; maintaining an orderly movement of ships and craft destined to land; the beaching of landing craft and operation of ferry craft to disembark troops and their equipment from transports and supply ships; and ensuring the proper functioning of his mission at the earliest possible moment after the assault.²⁶

To promote the rapid buildup, many LSTs and merchant transport ships accompanying the assault forces towed Rhino ferries. Once the beaches were relatively secure, these LSTs approached the beaches and unloaded onto the Rhinos or used LCTs returning from the beaches. This method proved very slow and Ramsay reported to the Admiralty that although a large proportion survived the passage and were operational on arrival, "The Rhino ferries failed to carry out their planned function." He added that "had there not been plenty of suitable beaches for drying out LST, unloading of vehicles from these craft would have been the merest trickle." The Americans, especially Admiral Hall, had already argued to dry out the LST because that was for what they were designed. Hall also saw the advantage that by drying out his LSTs, "This released all LCTs and Rhino ferries available for unloading MT Ships and MT Coaster." He went as far as to state "Perhaps the greatest single fact to emerge from the Operation is the ability of an LST to be dried out."²⁷

Another reason that drying out LSTs proved so effective was that the Army was combat loading them in Britain. To combat load a vessel, they loaded what they needed last, first. In this manner, they stored most vital equipment in the upper holds of the ships. However, they had loaded the merchant transports in whatever manner proved quickest and simply filled out a detailed manifest to allow valuable assets to be quickly found in the lower hold. This method might have worked except that the NOICs on the beach had no manifests and could not bring in a particular ship to unload a requested item. Hall later said that "It turned out that the invoices were being sent by Coast Guard ships and they were being sent down to some the British beaches by some Army mistake in the rear."²⁸

Without the manifest for the ships offshore the NOICs had no way of knowing what each ship carried. However the Army had written a "priority system" into the plans that only allowed supplies to be landed in a certain order or on special request by the Army. Without the manifests, unloading ships by the Army's "priority system" required the NOIC to visit each ship and search their copy of the manifests for the "priority" items. To further complicate matters, the Deputy Assault Group Commanders turned over the ferry services to the NOIC on the beach before he had his personnel and equipment ashore. Hall reported that Captain Camp was therefore, "utterly unable to cope with the

situation for some forty-eight hours or more after he assumed command."²⁹

Unwilling to accept this excuse for Camp, Kirk replaced him on 10 June with Captain Sabin, who had commanded the fire support craft for Omaha Beach. Kirk said he only did this after a few days and a conference with Bradley, in which Bradley agreed that the "incompetent beach master had to be relieved." New York Times correspondent Hanson Baldwin witnessed the meeting on D+5 between Kirk, Hall, and Bradley on Omaha Beach soon after Kirk's decision. He reported that "it was a rather grim scene because there was quite a heated debate among the three of them," which Baldwin accredited to Bradley's insistence that Kirk "get more supplies to the Army." Baldwin also said that "Hall was angry, and Kirk, you know how decisive he was and almost feisty in insisting that Hall get to it. There were quite a few heated words."³⁰

After repeated requests by Kirk and his NOICs, Bradley's Chief of Staff, Major General Levin C. Allen, lifted the restrictions on June 12 and the backlog was cleared in forty-eight hours. Kirk criticized the priority system in his report and wrote "Had the scale of the build-up been smaller, this might have been possible." Sabin also mentioned the "foul-up" to Ramsay during an inspection tour he made and Ramsay said, "It ought to go in the report in large letters. Selective unloading after a bitter struggle

when it is impracticable to know what is in the harbor is not sound." Sabin also wrote that Ramsay said, "Empty the ships and the priorities will take care of themselves."³¹

While the NOICs struggled to land supplies with landing craft and ferries, the Mulberry harbors began arriving. The Gooseberries had accompanied the invasion fleet and officers called "planters" supervised the sinking of the ships starting on D+2. All proceeded well off Omaha Beach and the Gooseberry making up Mulberry A was in place by D+4. Moon reported more difficulty due to German artillery fire than other beaches. While Hall's Gooseberry was in place by 10 June, Ramsay still reported "Utah delayed by shelling from heavy battery shelling" on 11 June. Not until the next day, on D+6, did demolition teams sink the last corncob off Utah Beach.³²

While the Germans delayed the installation of Moon's Gooseberry, Hall had already started laying Phoenixes off Omaha Beach for Mulberry A. After overcoming their pumping problem the Royal Navy raised five to ten Phoenixes daily and sent them to Omaha and Gold Beaches. Hall reported that the movement of the Phoenixes from Britain to Normandy went so smoothly that by D+14 "most of the Phoenixes were in position." Several LSTs had also started unloading over the Loebnitz pierheads anchored within the protection of the Phoenixes and Gooseberries.³³

During the night of 18 to 19 June, the wind increased

and by 1200 on 19 June Hall reported a "moderate gale blew from the northeast," and on 20 June, Moon reported the "wind never dropped below thirty knots." In the American sector all unloading had to stop over Mulberry A and within a few days the storm had destroyed most of the piers and breakwaters. In the British area Mulberry B continued to operate throughout the gale. The Admiralty later reasoned that Mulberry A received much more damage than B because "Mulberry A took the gale square on the chin whereas Mulberry B was struck a glancing blow." This referred to the fact that at Mulberry A the wave-front came in parallel to the breakwater while at Mulberry B it came in at an angle of thirty-seven degrees for most of the storm. They also noted that "Mulberry A had no natural shelter like the Calvados Shoal." While this shoal had forced Ramsay to delay H-hour to provide the necessary draft for his landing craft, it later saved the Mulberry of the British beaches. Finally they said that the "planter" for the Gooseberries protecting Mulberry A had allowed considerable gaps and that the "individual blockships did not overlap sufficiently."³⁴

During the storm many of the small landing craft raced to the shelter of the artificial breakwaters. Once they entered the harbor, the Admiralty report stated that the craft faced the unexpected danger of being struck by Bombardon that had broken "adrift menacing ships and adding to the confusion inside what was left of the harbour." The

ferries loaded with ammunition that Kirk and Bradley had beached shortly after D-day soon ran out and the shortage of ammunition became critical. During the storm the NOIC Utah Beach urgently requested to beach five coasters. Five minutes following his first request to beach the coastal transports, NOIC reported the Army radioed that the coaster was to be ordered in and "if there is no compliance, Army will send boarding party to bring coaster in." Due to Ramsay strict refusal to allow beaching, Moon could not order the craft onto the beach. After Moon informed Kirk of the situation, the NOIC received permission from Kirk to have the coaster beached.³⁵

The gale began on 19 June and lasted four days, damaging or driving ashore some eight hundred craft of all types. Of these eight hundred, Ramsay reported that "600 stranded ships and craft were refloated at the next spring tide 8th July and a further 100 a fortnight later." Lieutenant Vanderpool also wrote that after the gale "small craft were detailed to pick up floating bodies, sailors and others who had been swept overboard or lost in one way or another." Although the Allies managed to salvage most of the landing craft, they could not be used from 19 June until 8 July and many needed to return to Britain for repairs after being refloated. Captain Ellsberg later wrote, "Had the Nazis been able to cause us one-tenth the damage which the storm dealt us," much of their preinvasion propaganda

would have been true.³⁶

During the storm offshore convoys of merchant transports, LSTs, and LCTs had to be ordered back to Britain to wait for a break in the weather. By D+16 the winds died down and the unloading resumed at a furious pace. Kirk and Ramsay immediately decided to scrap Mulberry A and sent additional units arriving from Britain to reinforce Mulberry B. On Omaha Beach, Hall had five ammunition coasters immediately beached so the Army could directly unload them onto trucks. On both American beaches LSTs that had waited offshore, dried out on the first high tide. The remaining operational ferries and LCTs were then released to unload merchant shipping offshore. Kirk reported that "By the Herculean efforts of all concerned, unloading was quickly resumed and maintained at a higher rate than before the storm," without the aid of the artificial harbor.³⁷

In the final report on the Mulberries written by Sir Walter Monkton for the Admiralty, the question of their effectiveness in comparison with traditional landing craft became a key issue. Monkton pointed out that during the gale, twenty-one of the twenty-eight Phoenixes making up Mulberry A were destroyed and a further four were destroyed or badly damaged. He added that "bombardon broke adrift menacing ships and adding to the confusion inside what was left of the harbour." He also raised the question about whether the bombardon contributed to the destruction of the

Phoenixes. Officers within the Admiralty differed with many experts that were actually on hand during the gale. These officers that were offshore during the storm took the view that the bombardon units were hurled against Phoenix and pounded them until they failed.³⁸

Monkton wrote that "It has been suggested that the Gooseberry defeated its own end in that craft ran for its ambiguous shelter and were destroyed." Captain Ellsberg later contributed to this argument, contending that "five LCTs, broken adrift, drove down before the storm in the night and crashed into the eastern roadway of the Loebnitz pierheads." As more landing craft entered the harbors for shelter the situation became worse because most of the landing craft only had stern anchors. These were wire lines only intended to pull the vessels off the beach. With their anchors in the rear, the winds pushed down on the craft and waves began breaking over their sterns. Once their anchor wires parted, the waves then washed these craft onto the beaches. As the storm continued Elsey observed that other "craft piled up on the same stretch of sand" and soon made "hopeless masses of scrap iron."³⁹

In an earlier memorandum the Admiralty had also questioned the effectiveness of the actual piers inside the harbor. They stated that the "Whale was a convenience, but the same object can be obtained by simpler methods." They thought that resources utilized in the Mulberries might have

served the invasion better if used to build landing craft. Their memorandum continued, "The development of amphibious craft would appear to be the natural solution to many of the problems."⁴⁰

Chapter Ten

Following assaults during Operation Neptune, the Allies continued to expand their bridgehead in France. The American beaches soon merged and the First U.S. Army later took Cherbourg. After securing Cherbourg the Allies still landed most of their supplies and equipment over beaches because the Germans nearly destroyed the harbor facilities of the port before surrendering. As the invasion continued, the British had great difficulty taking Caen, while the Americans battled Germans who defended France's "Hedgerow country" with its thick walls of vines and brush. Once the Americans broke out of the beachhead, they quickly encircled the Germans still defending Caen ensuing the battle of Falaise Gap. Following the German withdrawal at Falaise, the Allies steadily drove the Germans back until the German winter offensive in December 1944, which was later named the Battle of the Bulge. The Americans finally met the Soviet Army at the Elbe River in May 1945, for all practical purposes ending the war in Europe.

When looking back on the success of Operation Overlord a few points of controversy arise. The first question was whether the invasion could have succeeded in 1942 or 1943. With the Allies' limited resources of 1942, Germany could have easily thrown them from the continent, yet by 1943--if the Allies' had not dedicated most of their manpower and production to North Africa--they stood a good chance of

successfully establishing a beachhead and eventually forcing the Germans from France. Historians now argue that the 1943 invasion might also have limited the extent of the Soviet Union's control over post-war Europe.

After Churchill and Roosevelt elected to execute Overlord in 1944 and established COSSAC, they severely limited Morgan's ability to effectively prepare for the invasion by not appointing a Supreme Allied Commander. Morgan's relatively low rank prevented Overlord from receiving many of the men and materials needed for the invasion's preparation until Eisenhower's appointment in December 1943. The crisis caused by the addition of two divisions might have been prevented if Eisenhower had been present at an earlier date and Anvil might have been salvaged.

Despite the early setback, once Overlord's principle flag officers reached Britain, preparations commenced at a tremendous pace. Each commander filled his subordinate chain-of-command as his officers arrived. However, in Kirk and Ramsay's case, the initial command relationship changed considerably as the buildup continued. Originally intended only to be a staff officer for Ramsay, Kirk soon became the operational commander of the American invasion beaches while Ramsay remained in England. Additionally, relationships between U.S. Navy flag officers do not appear to have strained as they prepared for the invasion.

While the Allies busily made ready to invade France, the Germans were equally busy trying to strengthen their defenses in the hope of repelling the imminent assault. Although they concentrated most of their resources near the Pas de Calais, under the Rommel's direction, the Germans constructed the most complex network of coastal defenses yet assaulted by the Americans. The Germans not built shore defenses but deployed effective patrol craft and laid fields of newly developed mines in the waters off the Overlord beaches. Additionally, they deployed in Normandy a division of the finest infantry only days before the invasion.

Once detailed planning began, Kirk had to take the overall naval plan issued by Ramsay, translate it into American terminology and practice, and continue to define the mission of his subordinates down to the smallest detail. While writing his plan Kirk not only considered the German defenses in the area, but also the conditions of the beaches and the inland terrain. As he wrote, Kirk drew upon not only his extensive personal experience during amphibious landings, but also upon research conducted before the war and experience gained by his counterparts in the Pacific.

After only a few months in England, Kirk published his Neptune orders that laid out every detail of the landing. He detailed exact times for various events and movements, locations, and units assigned including a preparatory phase and assault phase, and a follow-up stage to continue the

land campaign after the assault forces had secured the beachhead. Kirk's difficulties drastically increased after Eisenhower increased the size of the assault because he did not know until a late date exactly how many LSTs he could plan on using during the assault. Kirk additionally had to deal with the complicated method in which Ramsay issued his orders. While the U.S. Navy issued orders in the broadest effective manner, Ramsay, using the Royal Navy method, attempted to make all the decision at his level of command, which generated complicated orders and caused general discontent among the American flag officers.

Even as planning continued the U.S. Army and Navy commenced training exercises along England's southern coast. With training in such close proximity to the German E-boat base at Cherbourg, Kirk expected enemy reactions and made every precaution allowed by Ramsay. After permitting the Americans to conduct small assault exercises, the German Navy ultimately responded to the division sized assault, codenamed Operation Tiger. While the Germans sank three LSTs during Tiger, they also caused Kirk and Ramsay's personal relationship to decline to the point where Ramsay considered Kirk "a poor fish" and Kirk bragged of never having "knuckled under to him." Despite these personal feelings, their professional relationship remained most efficient.¹

Once Kirk completed training in mid-May, he could do

little but wait and ensure that his craft were at peak readiness. In the morning of 4 June, Kirk's task force weighed anchor and started sailing toward the French coast, but as the day progressed the weather became increasingly worse and by mid-day Eisenhower ordered a 24-four hour delay. The events following this postponement, when a squadron of minesweepers failed to receive the message, demonstrates the difficulties that Kirk and all other officers experienced when attempting long-range communication with a large command.

Once his fire support ships began firing and his landing craft hit the beach, Kirk exercised little control over the events occurring during the early hours of D-day. He had written his plan and supervised the training of his forces, and on 6 June Kirk had to sit back and watch the events transpire much like a spectator because there were seldom opportunities to communicate with the assault waves once they hit the beaches. The primary decision made by Kirk on D-day was to allow Admiral Hall to send his destroyers to within 1,000 yards of the beaches to deliver visually aimed fire onto the German positions. Many of the Army commanders present on the beaches during the destroyers' bombardment later wrote that the assault on Omaha Beach would have failed without Kirk's destroyers.

On Moon's Utah Beach, casualties were low, while the warships offshore experienced heavy losses owing to mines.

British intelligence had assured Kirk that the Germans had not used the type of mine present off Utah and, therefore he had made few preparations to meet this threat. The mines continued to cause casualties as the invasion continued but at a much slower rate, and the question of Omaha Beach's success was answered by 1600 on D-day.

Nature, however, eventually proved to be a greater danger to the Navy than any weapon the Germans possessed. Early in the assault, the gale that swept the Normandy beaches answered one of the primary questions raised by the Americans when it destroyed Mulberry A and forced the Americans to unload the rest of their supplies over open beaches. This was the preferred method expressed by the U.S. Navy but had not been allowed by Ramsay for fear of damaging the LSTs although that is what they had been designed to do. Following the storm and a few days to clear the beaches, the rate of unloading reached the pre-storm records achieved with the Mulberry.

After Overlord, Kirk directed the American aspect of the buildup over the beaches until Admiral Wilkes relieved him as planned on 3 July. Hard upon a short visit to the United States, Kirk was promoted to Vice Admiral and returned to Europe as Commander Naval Forces France and commanded U.S. Navy vessels used during river crossings as the Army moved across France, Belgium, Holland, and Germany. After Germany surrendered in 1945, Kirk remained in France

for a short time and then retired as a full Admiral. Shortly after his retirement, however, Kirk once again returned to Europe in 1946 to become the American Ambassador to Belgium. As if he had not already contributed to his country, Kirk later became President Truman's Ambassador to the Soviet Union at the height of the Cold War' in 1962, President Kennedy appointed Kirk as Ambassador to Nationalist China. Kirk had to return to the United States only months after traveling to Formosa. He died 15 October 1963.

ABBREVIATION USED IN NOTES

AEF	Allied Expeditionary Force
ANCXF	Allied Naval Commander Expeditionary Forces
CAC	Churchill Archival Center, Churchill College, Cambridge, England
CominCh	Commander-in-Chief
CWNTF	Commander Western Naval Task Force
MOD	Naval Historical Branch, Ministry of Defense, London, England
NA	National Archives, Washington D.C.
N.d.	No date on document
NHC	Operational Archives, Naval Historical Center, Washington D.C.
NXF	Naval Expeditionary Force
OH	Oral History
OIC	Operational Intelligence Center
PRO	Public Records Office, Kew Gardens, England
USNA	Nimitz Library, U.S. Naval Academy, Annapolis, MD

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The number of secondary sources concerning the actions of the U.S. Navy in Operation Overlord is severely limited, while the amount of primary sources is extensive. Of particular value were the Kirk Papers stored at the Naval Historical Center, Operational Archives (NHC). From these papers I primarily used the correspondence from Kirk to the many other flag officers, both British and American, involved in the operation.

Predominantly used were: Kirk's Naval Plan, "Western Naval Task Force: OpPlan 2-44 (COMWEST TWO), 31 May 1944; his "Task Force 122: Report of Normandy Invasion, 26 June 1944"; Admiral Hall's "11 PHIBFOR, Assault Force O: Action Report, 27 July 1944"; and Admiral Moon's report, later revised by Leonard Ware, "Task Force 122, Force U: Report of Operation Neptune, 26 June 1944". Other primary sources were examined at the Public Records Office in Kew Gardens, England (PRO). At that archives, I read Admiral Ramsay's "Operation Neptune: Report by ANCXF: Lessons Learned and Recommendations," and Walter Monkton's "The part played in Overlord by the synthetic harbours." Also in Britain I researched at the Naval Historical Branch, Ministry of Defense in London and found Ramsay's "Report by ANCXF on Operation Neptune" and his "Operation Neptune, ANCXF REPT:APP:2" which included many of the signals transmitted between himself and Kirk during the days just before D-day. Finally, in Britain I also visited the Churchill Archival Center (CAC) in Churchill College in Cambridge England. There I read the Ramsay papers, which included his

personal diary for 1944 and letters to his wife dating from March to August 1944. The last major report I cited was the British Operational Intelligence Center's "Special Intelligence Summary for January to September 1944". This document was provided by Professor James Tense and is still highly classified in Britain.

To augment my written primary sources, I conducted interviews with Kirk's son, Ambassador Roger Kirk, and the few surviving officers of Kirk's command. Rear Admiral Eric Strauss, Lieutenant Gordon Grayson, Army Captain McGeorge Bundy, and Captain Richard Steere were especially helpful.

Although Samuel Eliot Morison's The Invasion of France and Germany part 11 in his series History of United States Naval Operations in World War II was the only book specifically covering the U.S. Navy's participation in Overlord, many other books were used to supplement my primary sources. Most commonly cited were: Gordon A. Harrison, The European Theater of Operations; Cross-Channel Attack, Vol III, part 2 of United States Army in World War II (Washington: Office of the Chief of Military History Department of the Army, 1951); L. F. Ellis, The Battle of Normandy, Vol 1 of Victory in the West (London: HMSO, 1962); B. Mitchell Stimson, Admiral Harold R. Stark, A Biography (Columbia: University of South Carolina Press, 1989); Ernest J. King, Fleet Admiral King, A Naval Record (New York: Norton & Company, 1952); Sir Frederick Morgan, Overture to Overlord (Garden City, N.Y.: Doubleday & Co. Inc., 1950; Alfred Chandler, ed., The Papers of Dwight David Eisenhower; The War Year, Vol.

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